

# Manufacturers Record

## Exponent of America



\$6.50 per Year.  
Single Copy, 20 Cents.

Baltimore, Md.  
SEPTEMBER 8, 1921

### \$500,000,000 ADDED TO COTTON VALUE.

In the last 60 days the advance in cotton has made the new crop and the carry-over worth nearly \$500,000,000 more than they would have been worth at the prices then prevailing. Moreover, the gambling bears were bent on beating prices still lower, but fortunately they have been caught in their own trap and are being right gloriously punished.

This \$500,000,000 means a change difficult to exaggerate. It will wonderfully affect the whole atmosphere of the South's business and agricultural interests; it will save many a man and many a business from bankruptcy; it will revive trade; it will nourish every industry with new life blood; it will quicken the hopes of the disheartened; it will put new courage into all the people; it will show the tremendous blunder committed when the former Administration curtailed credit and killed the War Finance Corporation, and it will prove the power for good of the freer credit and the re-establishment of the War Finance Corporation by the present Administration.

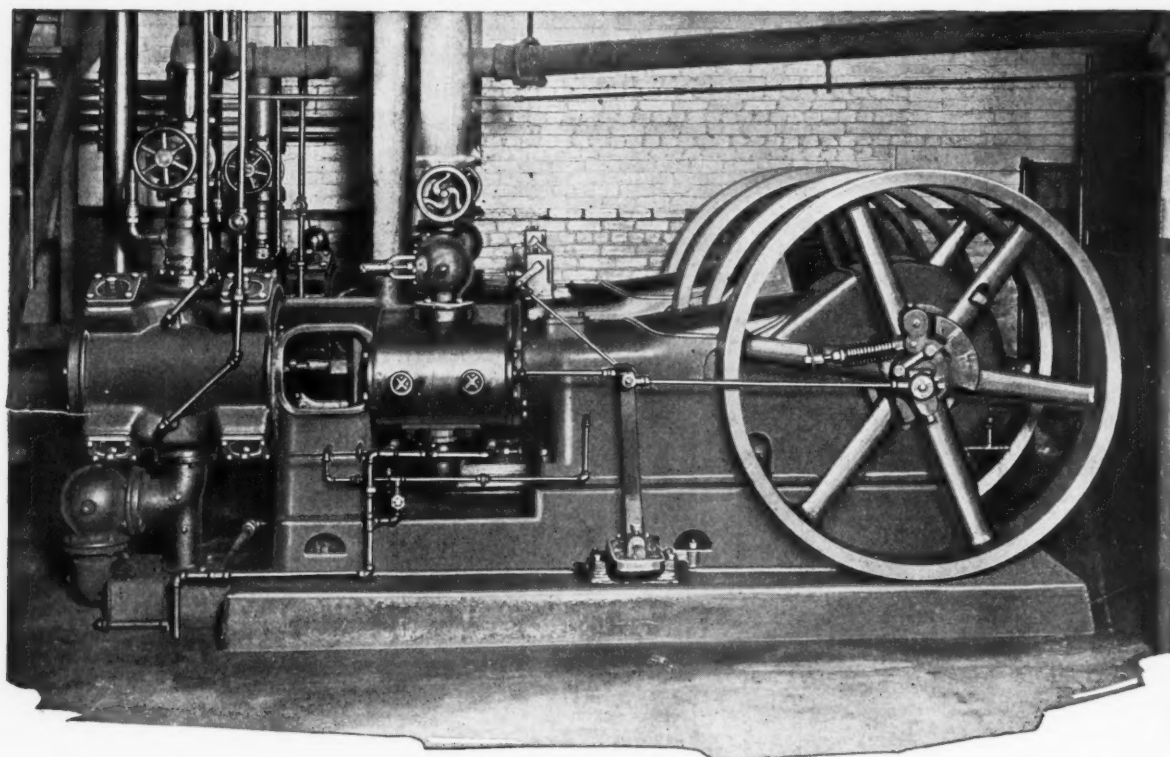
This advance will also show the wisdom of a reduced cotton acreage, with an increase in foodstuff production. In this lesson the South should find the road to permanent prosperity, greater than it has ever known.

If the South will, now and forever, be independent and rich, let it cut its cotton acreage heavily for all time to come and intensify the acreage it does cultivate in order to reduce the cost of production and then concentrate on foodstuffs for itself and for the country. Then home-made fertilizers will enrich its soils, grain and grasses and cattle and hogs will diversify its agriculture, enlarge the horizon of its farmers and add enormously to their prosperity. Never was there a better object lesson than the present.

If the South had raised 12,000,000 bales of cotton, the price would probably have gone to 6 cents a pound; but with a crop of only about 7,000,000 bales the price has gone to more than three times that figure and many a farmer will now live who at 6 cents would have been hopelessly bankrupt and in poverty for years to come. A crop of 12,000,000 bales with a carry-over of, say 8,000,000 in round figures, or 20,000,000 bales, at 6 cents would have been worth only \$600,000,000, which would have meant bankruptcy for the entire cotton-growing interests. A 7,000,000 bale crop and a carry-over of 8,000,000 bales at even 18 cents a pound—and it should go higher—would be worth \$1,350,000,000.

Let the South reverently thank God for this increased wealth, take courage and go forward with new zeal and energy.





## STARTING RIGHT

Your air compressor section should not be governed by first price alone. It is an acknowledged fact that you usually get what you pay for—no more and no less. Knowing this to be the case the only air compressor you can afford to buy is the one which will give you constant service and cost the least to operate.

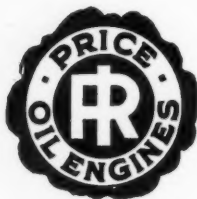
If you are thinking of a steam driven compressor you should get the figures on Ingersoll-Rand Class "FR" compressor economy. Its balanced piston steam valves and automatic cutoff fly wheel governor insure a decided saving, when compared with compressors equipped with a flat valve and throttling governor.

Then, too, the piston valve permits the use of high steam pressure and superheat as well as ordinary saturated steam.

In addition to the above features the Class "FR" compressors has: enclosed, center crank construction; automatic lubrication and Ingersoll-Rand plate air valves.

Start right by letting us send you bulletin 3131 describing this type of compressor in detail.

All sizes of compressors from 4 ft. per min. to 10,000 ft. per minute.



**Ingersoll-Rand Company**  
11 Broadway, New York

556C

# Ingersoll-Rand

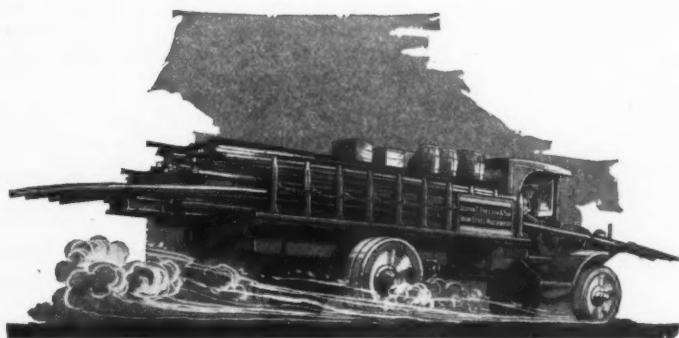












# Steel plus Speed

FIRST: We have the steel.

SECOND: We ship at once.

Over three quarters of a century of successful service assures reliability, accuracy and speed.

Bars  
Structurals  
Plates  
Sheets  
Tubes  
Chain

Rivets  
Bolts  
Nuts  
Washers  
Floor Plates  
Safety Treads

Turnbuckles  
Tool Steel  
Alloy Steel  
Ulster Iron  
Boiler Fittings  
Machinery, etc.



Write for Ryerson Stock List  
—the key to immediate steel.

ESTABLISHED 1842

INCORPORATED 1888

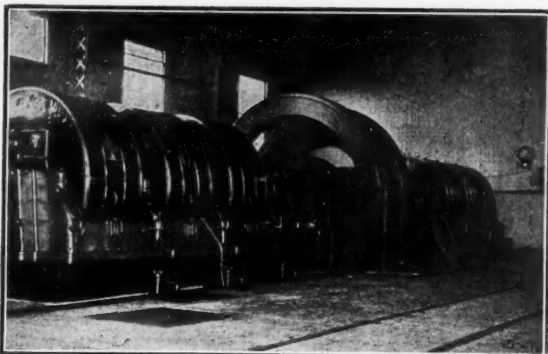
**JOSEPH T. RYERSON & SON**

CHICAGO ST. LOUIS DETROIT BUFFALO NEW YORK  
BRANCH OFFICES: DENVER HOUSTON  
MILWAUKEE MINNEAPOLIS NEWARK

# RYERSON STEEL-SERVICE



## DE LA VERGNE OIL ENGINE



1080 H. P. De La Vergne Diesel Oil Engine at Waiphan-Oahu, T. H.

A simple pump injection oil engine with the troublesome air compressor eliminated. Burns any kind of commercial liquid fuel—Consumption  $4/10$  of a pound per horsepower hour. The first De La Vergne oil engines built 28 years ago are still running. The first pump injection oil engine of high economy was developed in the De La Vergne factory in 1913.

*Send For Our Bulletin*

**De La Vergne Machine Company**



1107 East 138th Street  
NEW YORK, N. Y.

## ENGINES BOILERS TANKS TOWERS SMOKE STACKS

If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

*Write us for further information  
and become a satisfied customer.*

**SCHOFIELD'S IRON WORKS**  
Dept. H MACON, GA.

## ENGINES BOILERS

8-2-3

Steel Casing Settings, Heaters, Stacks, Tanks, Stills  
**THE HOUSTON, STANWOOD & GAMBLE Co.**  
CINCINNATI

## CORLISS ENGINES



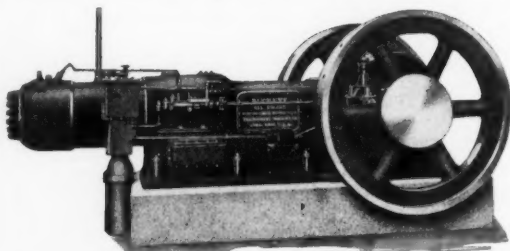
Boilers of All Styles and Sizes

**Murray Iron Works Co.**  
BURLINGTON, IOWA

Incorporated February 1, 1870

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## IN COLLEGES TOO—



A 65 HP Buckeye oil engine installed in a Tennessee Polytechnic Institute is furnishing dependable power and light to this institution of learning at a cost far below previous costs.

Low fuel and lubricating oil consumption are the outstanding features of the Buckeye.

Sizes 55 to 260 HP.

**THE BUCKEYE MACHINE COMPANY - - Lima, Ohio**

## CALDWELL

Elevating, Conveying and Power-Transmitting Machinery for

**Cotton Oil Mills**



"Holecoid" Screw Conveyors, Elevator Buckets, Roots and Castings,  
Gears, Sprockets, Chain, Pulleys, Bearings, Rope Sheaves,  
Screens, Perforated Metal.

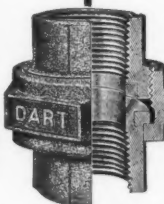
**H. W. CALDWELL & SON CO.**  
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## THE QUALITY UNION

The Dart is the Quality Union, and quality is always cheapest.

The Dart is made of Malleable Iron, with extra heavy pipe ends and with double seated ball joint formed of bronze rings.

IN DART UNION THERE IS DOUBLE STRENGTH



**E. M. DART MFG. CO.**  
PROVIDENCE, R. I.

The Fairbanks Company, Sales Agent  
Dart Union Co., Ltd., Toronto, Canada



# EAGLE WELDED STEEL PRODUCTS

OIL CANS, TORCHES, TALLOW POTS, FILLERS, ETC.

HIGHEST CLASS OILERS IN THE WORLD.

INDESTRUCTIBLE—WILL STAND MORE ABUSE THAN ANY OTHER MAKE—AND NOT LEAK.

EAGLE WELDED STEEL GOODS are positively unaffected by heat. By our patented WELDING process all seams are fused and melted together without the use of a single drop of brazing compound or soldering flux of any kind. By this WELDING process the two thicknesses of metal actually become one piece, thus literally doubling its strength at the WELDED joint.

## EAGLE

Any piece of EAGLE WELDED WARE can be placed over fire and heated to a point at which the metal would melt, yet the WELDED seam would not open. This cannot be done with any other similar ware.

Oil containers are frequently placed over fire in order to thin the oils; EAGLE WELDED WARE is the only make that will absolutely stand this test and not leak.

EAGLE WELDED WARE is STRONG where all other makes are weak.



Sectional Cut Showing Construction

Write for Catalog and Prices



## EAGLE MANUFACTURING COMPANY

Largest Oil Can Makers in America

WELLSBURG, W. VA.

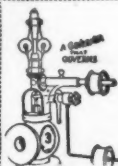
### The Morgan Producer Gas Machine

is the highest class gas producer built in the U. S. and is advertised in this journal the first issue of each month.

Morgan Construction Co., Worcester, Mass.

Pittsburgh Office: 704 Arrott Bldg.

Telephone Court 1381.



### The Gunther Governor

For Any Make of Engine

Extremely sensitive, giving closest regulation, simple in construction, with only three wearing parts. Very durable, with minimum driving power. Made in all sizes. Quick delivery.

Write for circular and price list.

THE WRIGHT MACHINE CO., Inc.  
Established 1880 Owensboro, Kentucky

### "Walls" Everlasting Oilers

of Brazen Steel, specially designed for Strength. Every joint brazed with Hard Spelter. Red Heat or the roughest usage will not cause a leak.

Our Specialties Include

Oil Caps	Bells
Fillers	Gongs
Torches	Belt Fasteners
Hand Lamps	Ice Cans, Etc.

These goods are warranted of the greatest possible durability, and the best obtainable quality.

Ask for Catalogue

The P. Wall Mfg. Supply Co.  
Allegheny, Pa.



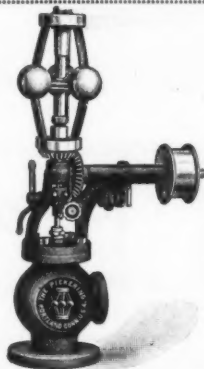
## GAS ENGINE GOVERNORS

Because of the excellent showing that Pickering Governors have made on Steam Engines in the past, many operators are consulting with us as to adaption of our JOINTLESS principle to Gasoline Engine control and we have shown desired results in a simple and effective manner.

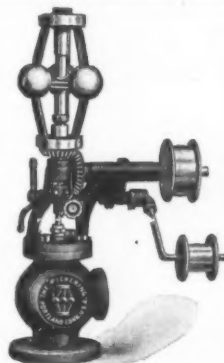
We will be glad to confer with any parties dissatisfied with present equipment, showing what we can do as solution of their problem—yet without their incurring any obligation as to purchase.

### THE PICKERING GOVERNOR COMPANY

Portland, Conn., U. S. A.



Class B type



Class A type




 HELIOS

**How one firm  
saves \$295  
per week on  
its boiler  
room payroll**

### Previous Payroll

(Installation consisted of four 275 hp. and seventeen 250 hp. boilers hand fired.)

10 firemen	@ \$20 =	\$200
5 water tenders	@ 25 =	125
2 repair men	@ 35 =	70
1 foreman	@ 40 =	40
		<u>\$435</u>

### Present Payroll

(Installation consists of five 950 hp. Heine Large-Unit Boilers with mechanical stokers)

2 firemen	@ \$20 =	\$40
1 water tender	@ 25 =	25
1 repair man	@ 35 =	35
1 foreman	@ 40 =	40
		<u>\$140</u>

**Saving - \$295**

### 300% Rating

from banked fire in 4 min. 23 sec., and maintained until the stoker ceased to function.



THE installation above exemplified is in the power plant of a large New England Textile Mill (name given on request). Five 950-hp. horizontally baffled Heine Large-Unit Boilers have replaced seventeen 250-hp. and four 275-hp. boilers. The Heine boilers in this plant have been in operation for three years and are giving in practice all they held forth in theory.

Heine Large-Unit Boilers will help solve your boiler room problems as they have helped to solve those of many of the largest firms in the country—efficiently, economically and for all time.

**Heine Safety Boiler Company, St. Louis, U.S.A.**

New York Boston Chicago Cincinnati New Orleans  
Philadelphia Pittsburgh Detroit Cleveland

Also Agencies in many other cities

2011

# HEINE LARGE UNIT BOILERS



# The Importance of Good Rope

Millions in property and thousands of lives are trusted each year to a single line of Whitlock All-Manila Rope. Such is the confidence, born of long experience, that sailors place in Whitlock Guaranteed Cordage—and *sailors know rope*.

**WHITLOCK CORDAGE**  
THE UTMOST IN ROPE VALUE

On land as well as at sea, rope users are swiftly learning these three vital facts about Whitlock All-Manila:

*It actually costs less because it lasts much longer than cheaper grades.*

*It retains its great strength long after cheaper grades have become weak and unsafe.*

*It will stand up under the hardest tests of wind, weather and work.*

Men who have learned these things seek the dealer who carries Whitlock Products. You should be one of these dealers.

Write today for a catalog describing our complete line of Manila and Sisal rope and twine. Ask, also, for the Whitlock distributor in your territory.

**WHITLOCK CORDAGE COMPANY**

46 South Street, New York

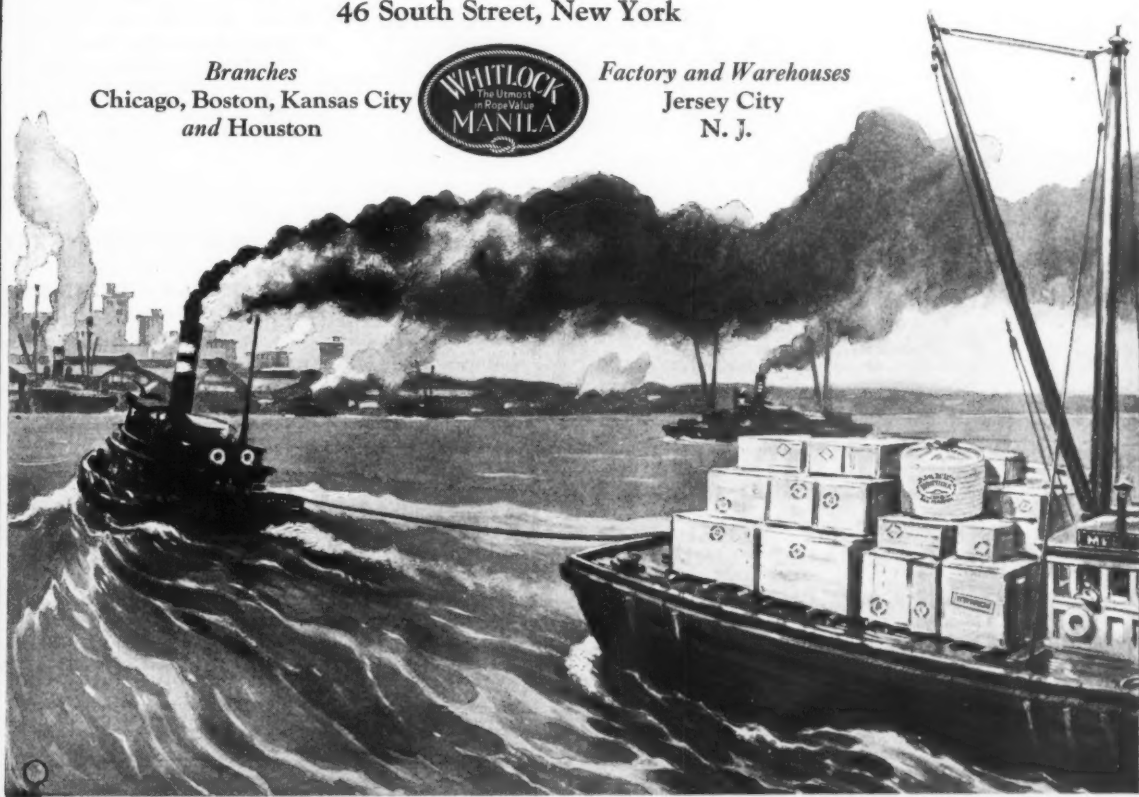
*Branches*

Chicago, Boston, Kansas City  
and Houston



*Factory and Warehouses*

Jersey City  
N. J.





# THE BABCOCK & WILCOX COMPANY

85 LIBERTY STREET, NEW YORK

**Builders since 1868 of  
Water Tube Boilers  
of continuing reliability**

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**Makers of Steam Superheaters  
since 1898 and of Chain Grate  
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DENVER, 435 Seventeenth Street  
SALT LAKE CITY, 705-6 Kearns Building  
SAN FRANCISCO, Sheldon Building  
LOS ANGELES, 404-6 Central Building  
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**FOR ALL TYPES OF BOILERS**

**Especially bent tubes for vertical water-tube boilers**

Also carry a large stock of straight tubes.  
Write, phone or wire for quotations.

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**Specialists in  
Inspecting and Repairing**  
all types of

**Brick and Concrete Chimneys**  
while your plant is in operation.

**Acme Chimney Company**

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## RUST CHIMNEYS

**RADIAL BRICK AND REINFORCED CONCRETE  
REFRACTORY BRICKWORK**

**THE RUST ENGINEERING CO.**  
ENGINEERS AND CONTRACTORS

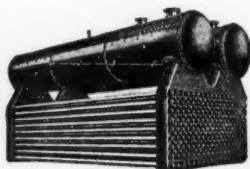
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## BOILERS OF ALL TYPES

WITH OR WITHOUT STEEL CASINGS



**TANKS and  
TOWERS**

**STRUCTURAL  
STEEL WORK**

**THE WALSH & WEIDNER BOILER CO.**  
CHATTANOOGA, TENN.

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**RADIAL BRICK CHIMNEYS**  
**Alphons Custodis Chimney  
Construction Company**

Also EXPERTS in  
Repairing Brick and Concrete Chimneys  
Heightening Chimneys  
Lightning Rods Installed and Repaired  
Work done while chimney is in operation, if necessary  
New York Atlanta Richmond Baltimore

## CHARLESTON DRY DOCK & MACHINE CO.

Successors to VALK & MURDOCH CO.

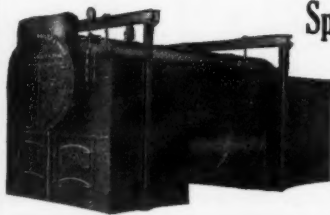
**MARINE AND STATIONARY BOILERS**  
**Repairs to Steel and Wooden Vessels**

8,000-ton Dry Dock - 1,500 and 600-ton Marine Railways  
**CHARLESTON, S. C.**

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**TANKS OF STEEL FOR  
ALL PURPOSES**

**Special Plate Work**



**LOOKOUT  
BOILER  
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COMPANY**

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## CRANE PIPING EQUIPMENT

## DIXON'S PIONEER BOILER GRAPHITE



makes boiler cleaning easy, reduces fuel  
consumption, increases steaming capacity  
and lowers cost of boiler maintenance.  
Booklet No. 80-T.

Made in JERSEY CITY, N. J., by the  
**JOSEPH DIXON CRUCIBLE CO.**

Established 1827





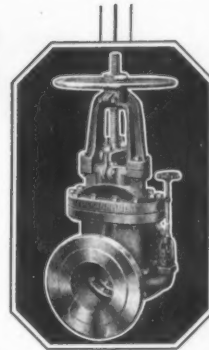
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## Valves and Engineering Appliances

GLOBE, GATE, CHECK,  
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NON-RETURN VALVES, ETC.

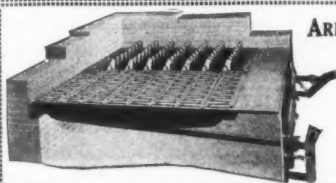
THE LUNKENHEIMER CO.  
"QUALITY"  
LARGEST MANUFACTURERS OF  
HIGH GRADE ENGINEERING SPECIALTIES  
IN THE WORLD  
NEW YORK CHICAGO CINCINNATI BOSTON LONDON  
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WATER COLUMNS, COCKS,  
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**SAFETY-ECONOMY-PERMANENCE**

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cut fuel costs from ten to  
forty per cent.

—Prove it—  
your plant—our expense  
Armstrong Mfg. Company  
W. Liberty Street  
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### Double-Shift Rocking Grates

Have 10% more air space than any other grate  
made. Designed for hard or soft coal.

Nute, McGehee, Geary Co., Inc.  
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### HARTLEY BOILER WORKS

BUILDERS OF HIGH GRADE BOILERS

Stand Pipe, Self-supporting Stacks, Tanks, Towers, all kinds  
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MONTGOMERY

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Fire Without Having A Cleaning Period On



For Use with Either Natural, Induced or Forced Draft

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Machine Tools  
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Shafts, Pulleys, Hangers, Couplings, Etc.

Locomotive Injectors  
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"Eastern Kentucky's Best"  
ELKHORN COAL

Get the Quality You Pay For

Write for Specifications

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### SEQUATCHIE COAL CO.

Wholesale

STEAM AND DOMESTIC COAL

Volunteer Bldg., Chattanooga, Tenn.

We keep others in

## Hot Water

Submit your water-  
heating problems to

**THE SIMS COMPANY**

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# FOSTER SUPERHEATERS

A necessity for turbine protection, engine cylinder economy and utilization of superheat for all its benefits.

POWER SPECIALTY COMPANY Boston, Philadelphia, Pittsburgh, Chicago, San Francisco, London, Eng 111 BROADWAY, NEW YORK



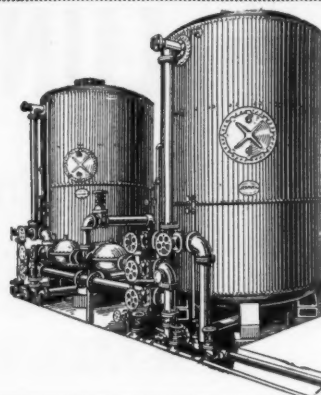
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Softeners and Filters, All Sizes, for Every Purpose—Any water, anywhere, corrected to meet your exact needs.

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**The Permutit Company**  
440 Fourth Ave. New York

Offices in all principal cities



## CLEAN WATER

"A gallon an hour or millions per hour"

Roberts filters, filtration plants and appliances are built to meet every clean water requirement—Industrial, municipal or domestic.

Units up to 500,000 gals. daily capacity carried in stock.  
Our Engineering Department is at your service.

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FOR INDUSTRIAL, RAILROAD,  
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**FILTERED WATER SOFTENED**

Softeners or Filters of any type or capacity as separate or combination Systems.

**AMERICAN WATER SOFTENER COMPANY**

S. E. Cor. 4th & Lehigh Ave.

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**WE-FU-GO AND SCAIFE**

**WATER** PURIFICATION SYSTEMS  
SOFTENING & FILTRATION  
FOR BOILER FEED AND  
ALL INDUSTRIAL USES

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- WATER SOFTENERS

- RECORDING METERS

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Pittsburgh, Pa.

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**LOMBARD IRON WORKS & SUPPLY CO.**

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Machinery Supplies Repairs Castings

**THE VILTER MANUFACTURING CO.**

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Ice Making  
Refrigerating Machinery  
Poppet Valve and  
Corliss Engines  
SPECIAL MACHINERY



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Peerless Packing      Rainbow Packing  
Hercules Wire Rope      Pilot Special Planer Belt  
Original Genuine Gandy Belt  
Giant Seamless Stitched Rubber Belt  
Rainbow Friction Surface Rubber Belt

Catalog covering the  
above lines upon request

**The Bailey-Lebby Company**  
Charleston, S. C.

## Have Perfectly Regulated Refrigeration

With a Baker Special System you could keep temperatures in your plant under minute regulation.  
The BAKER SPECIAL Refrigerating System is the perfected result of many years of success in the evolution and development of what is today the Best Mechanical Refrigeration Equipment on the Market.

SEND TODAY for Descriptive Literature and Price Estimate.  
BAKER ICE MACHINE CO., Inc.

Manufacturers, Omaha, Nebraska  
(Branch Office, Moody, Knight, & Lewis, Little Rock, Ark.)

**CROCKER-WHEELER MOTORS**

Niagara's Rival

Dependable Power

CROCKER-WHEELER CO., Ampere, N.J.





## AN ICE PLANT???

The Arctic Stationary Can Raw Water System is the one you should buy because in actual daily use it will reduce your running and overhead expenses.

### WHY?

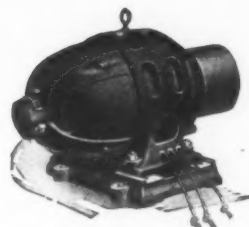
Decreased Labor—  
Simpler to Operate—  
Cleanest Plant in the World—  
Minimum Cost for Power—  
Most Efficient Air Agitation—  
All Core Water Absolutely Removed—  
Blocks of Uniform Size.

### THE ULTIMATE PLANT

WRITE US FOR DETAILS

**The Arctic Ice Machine Co.**  
Canton, Ohio

## 40° TRIUMPH

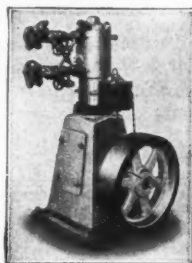


### "TR" MOTORS THEY'RE AUTOMATIC

Connect one to the pump that supplies your water tower, install a float and the "TR" motor lets you forget it.

*Would you like to have our bulletin on this greatest triumph of them all?*

**The Triumph Electric Co.**  
Cincinnati, Ohio  
Builders of Motors Since 1892



## Refrigeration

This little machine driven by an electric motor will maintain constant low temperature in any cold-storage box or room.

Anyone who can operate an electric switch can operate this system.

The Continental Direct Expansion Freezer for Ice Cream Manufacturers affords the most economical system known for freezing ice cream.

HENRY A. KRIES & SONS CO.  
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Southern Distributors for  
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## ELECTRIC MOTORS REPAIRED

### Quick Service



We are equipped to give you prompt and intelligent service on your motors and generators.

**WINGFIELD & HUNDLEY**  
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## ATLANTIC ELECTRIC CO. NORFOLK, VA.

*Electrical Supplies for Mill and Plant*  
Wire, Meters, Lamps, Transformers, Pole Hardware,  
Insulators, Fans

Good stocks and unexcelled freight facilities

*Chattanooga* ARMATURE WORKS.  
REWINDING ELECTRICAL  
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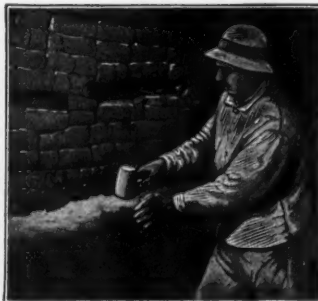
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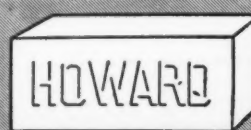
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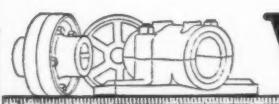
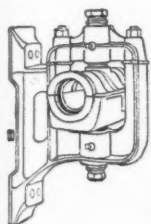
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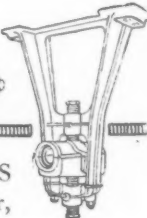
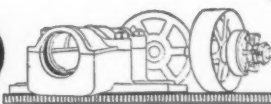
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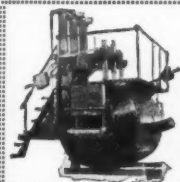
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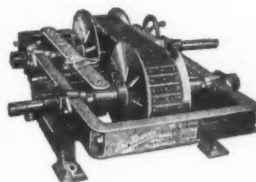
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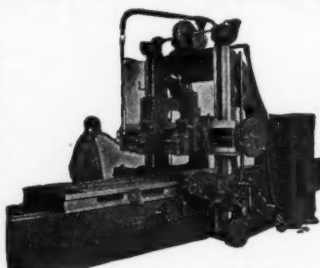


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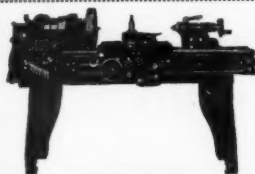


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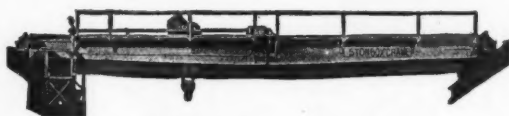
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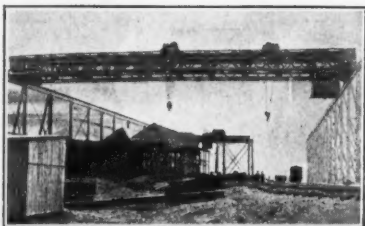


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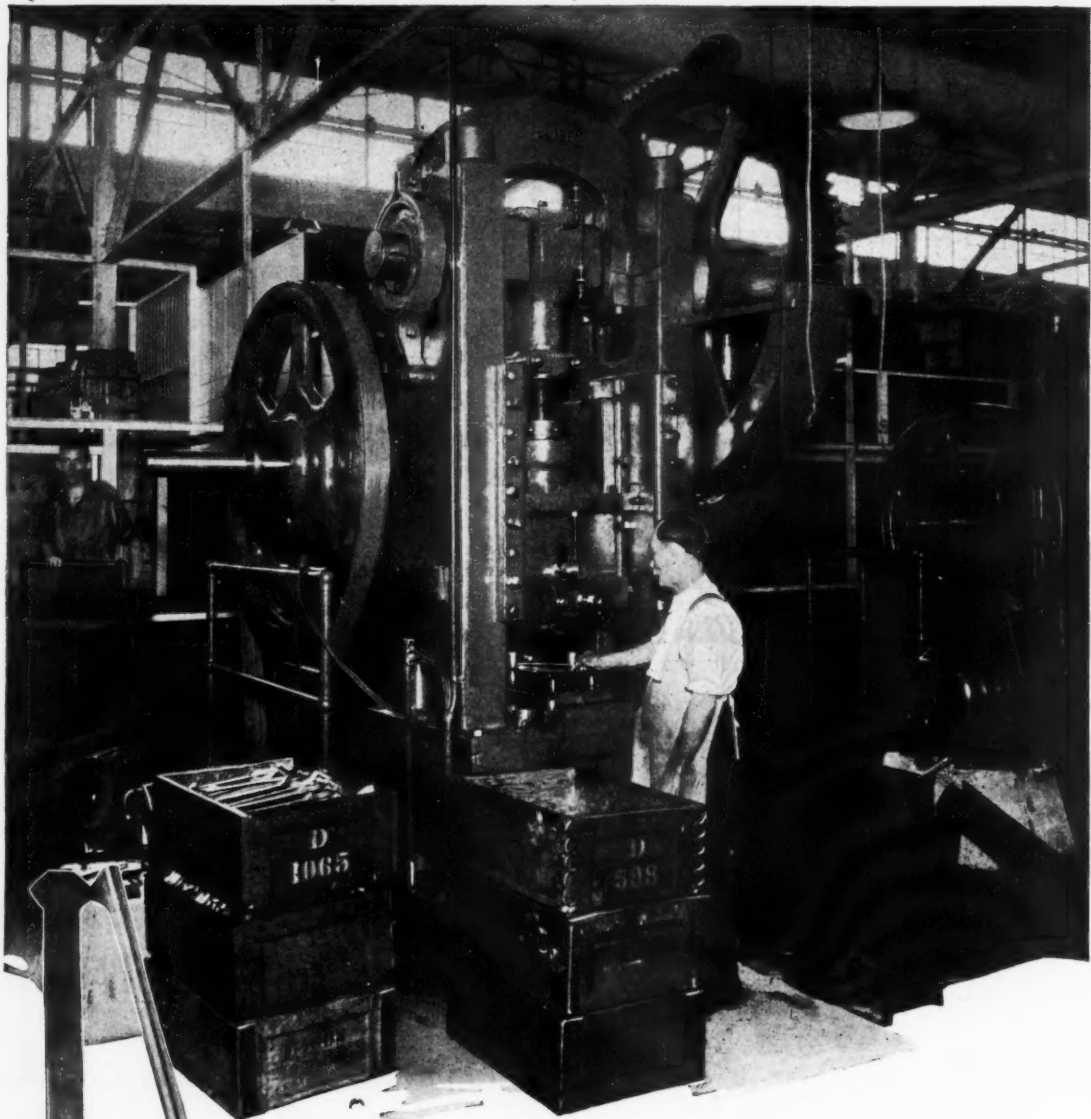
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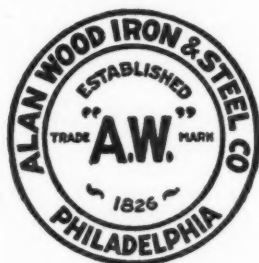
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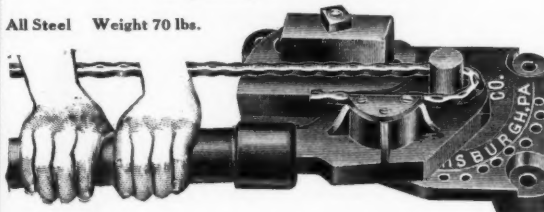
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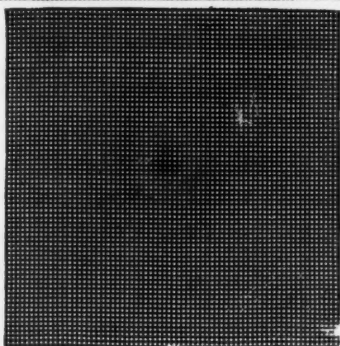
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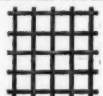
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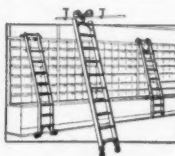
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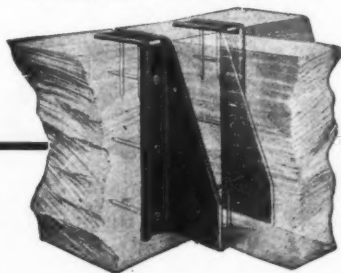
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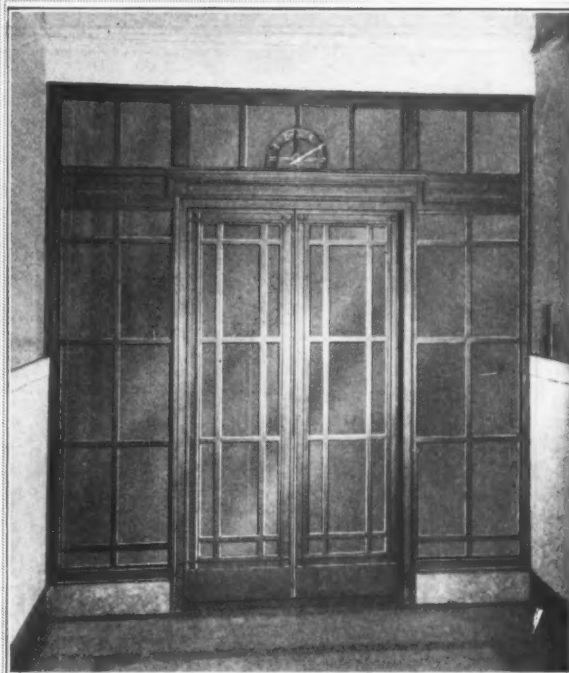
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General—4

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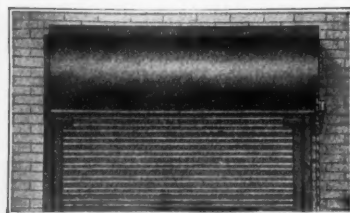
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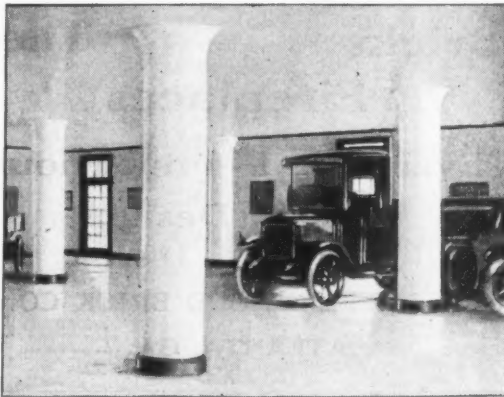
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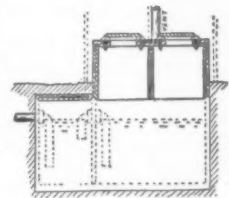
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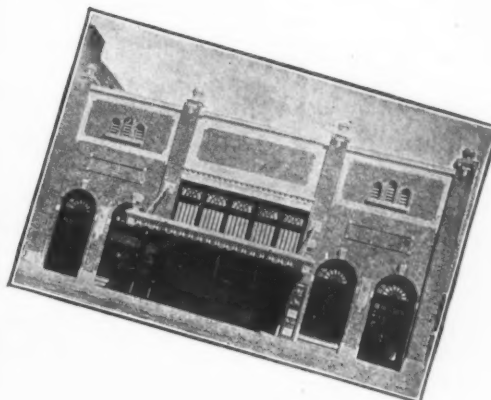
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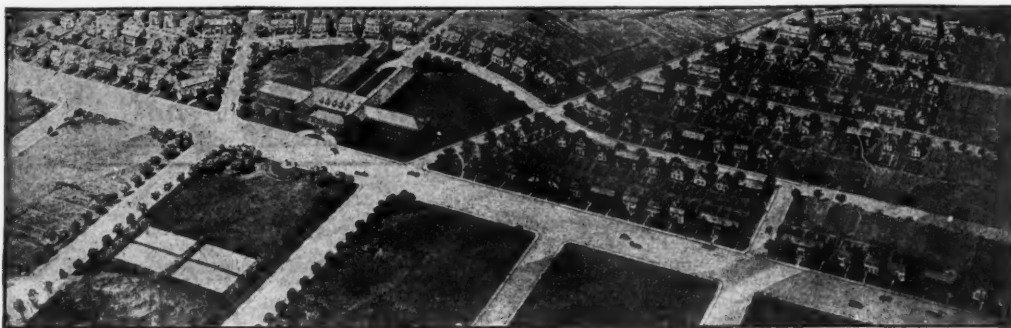
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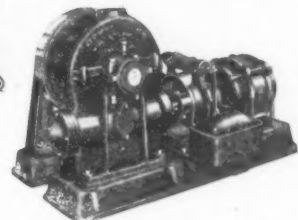
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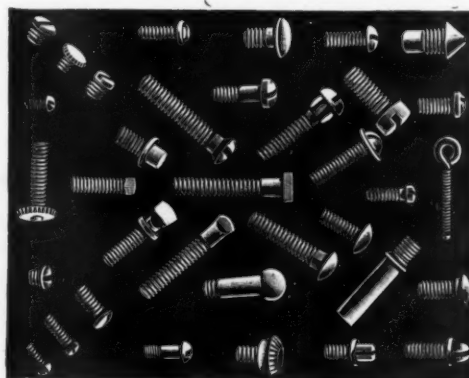
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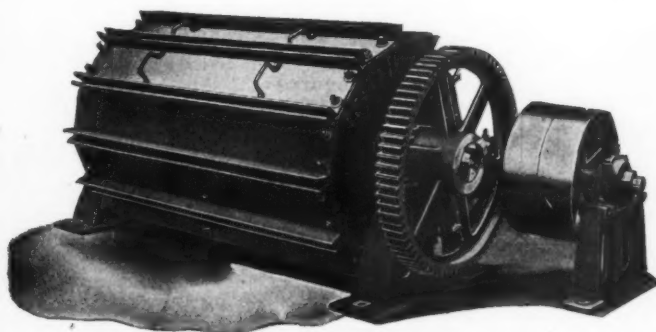
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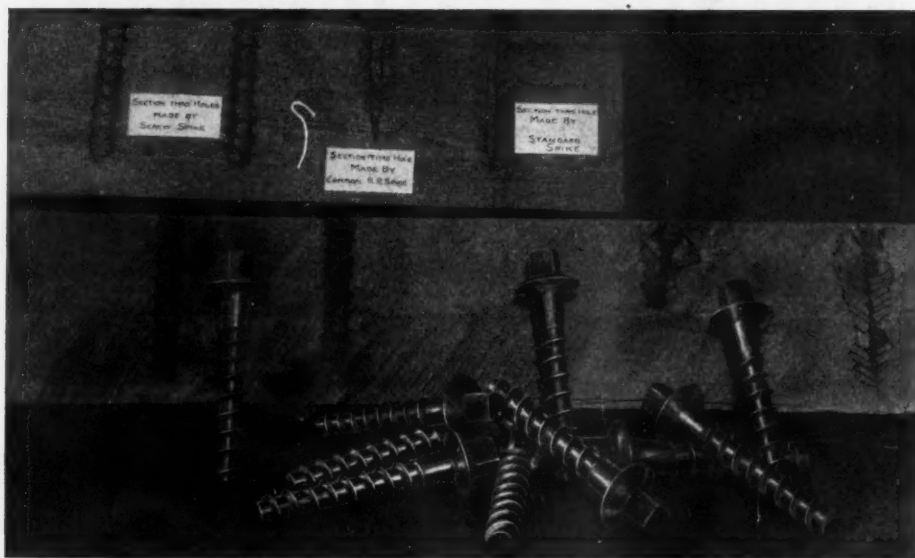
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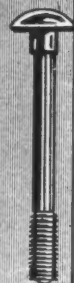
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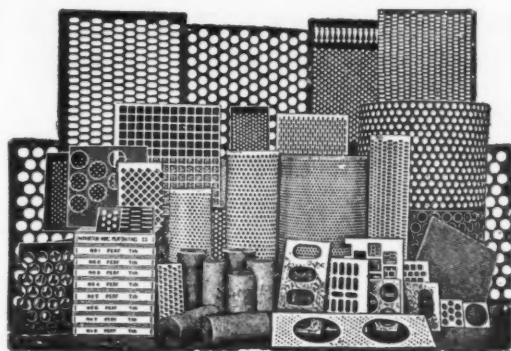
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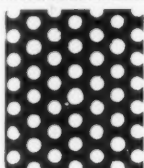
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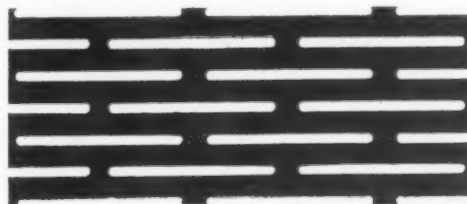
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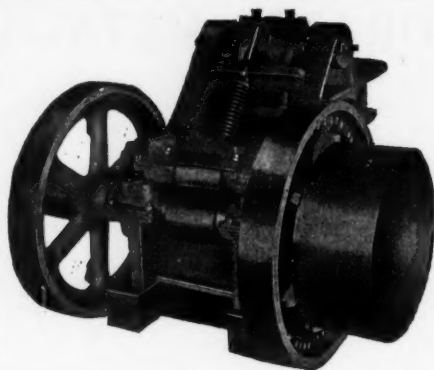
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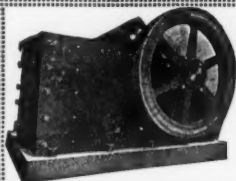


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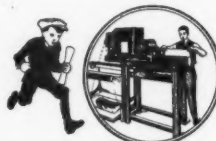
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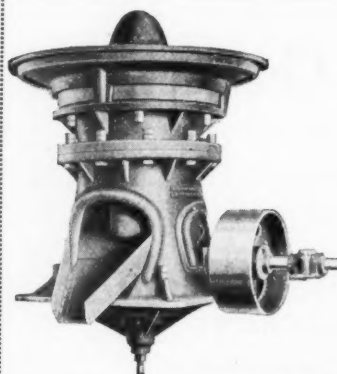
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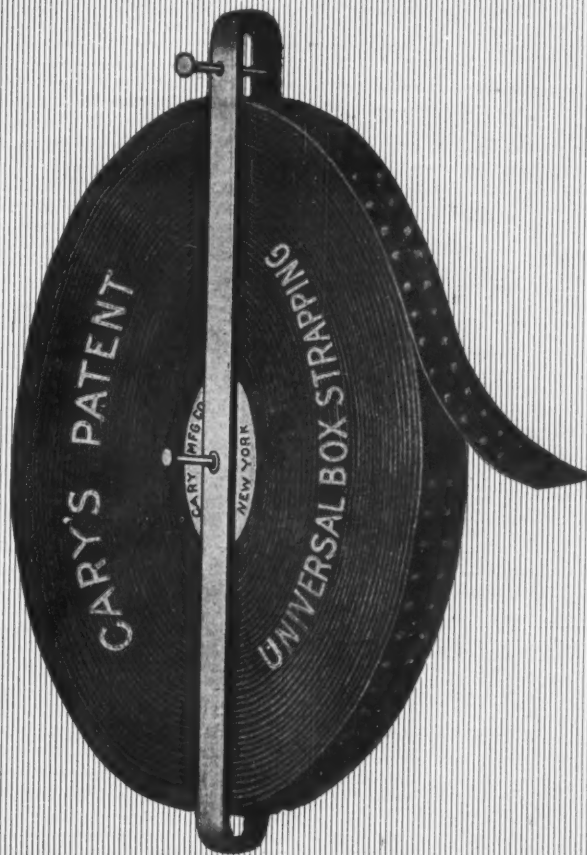
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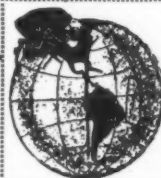
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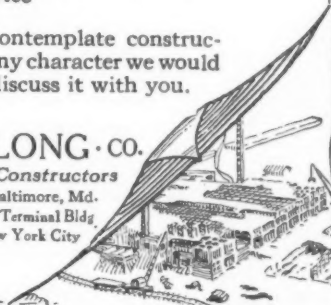
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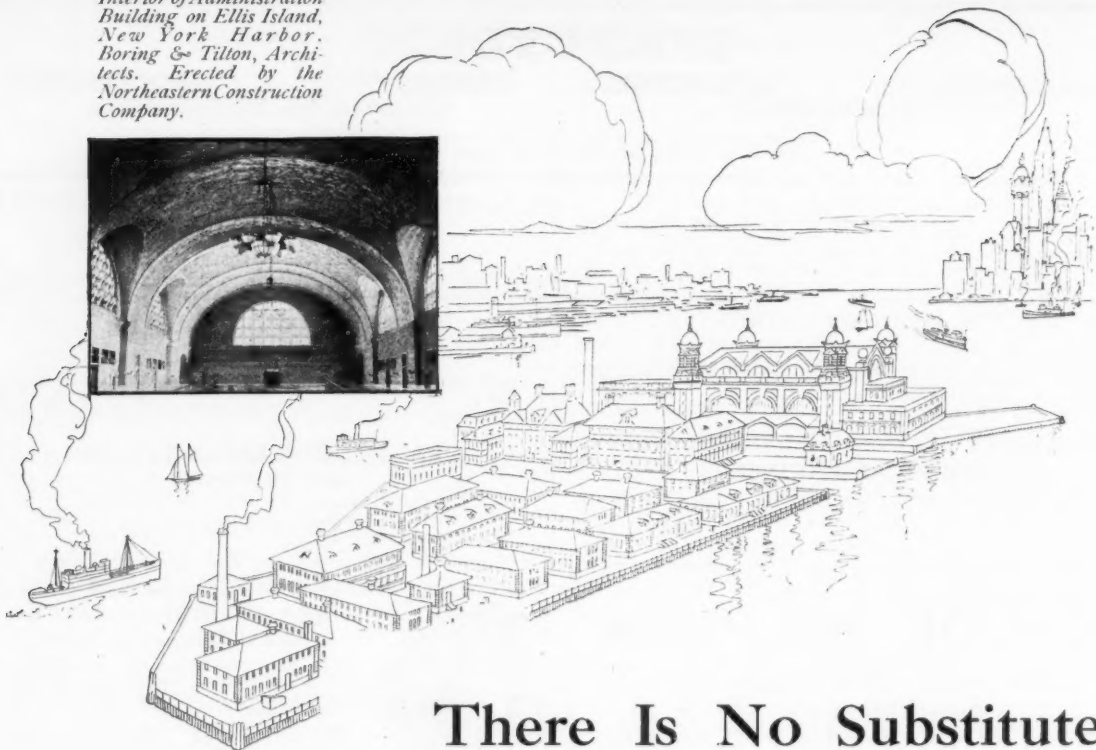
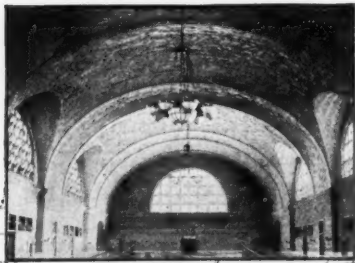
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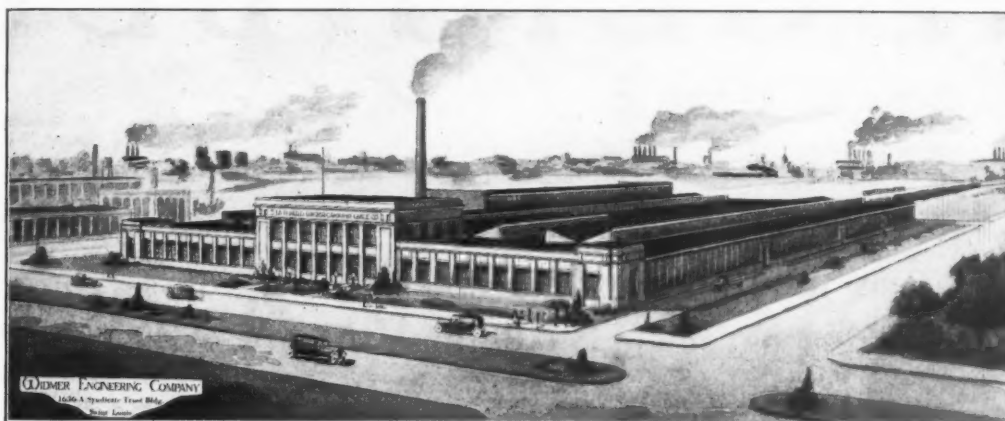
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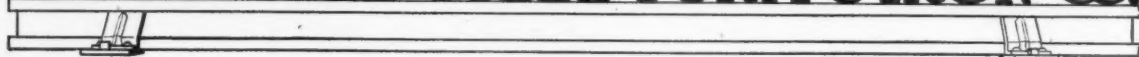
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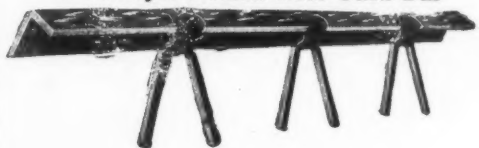


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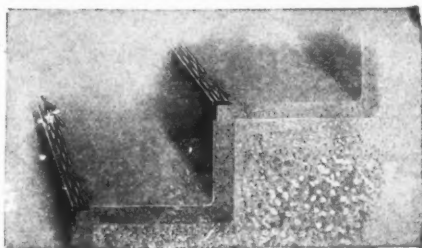




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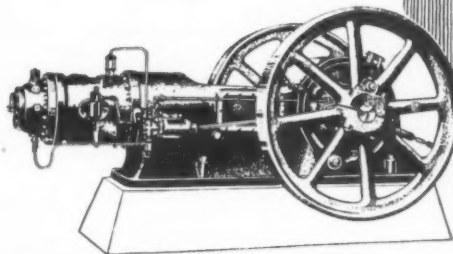
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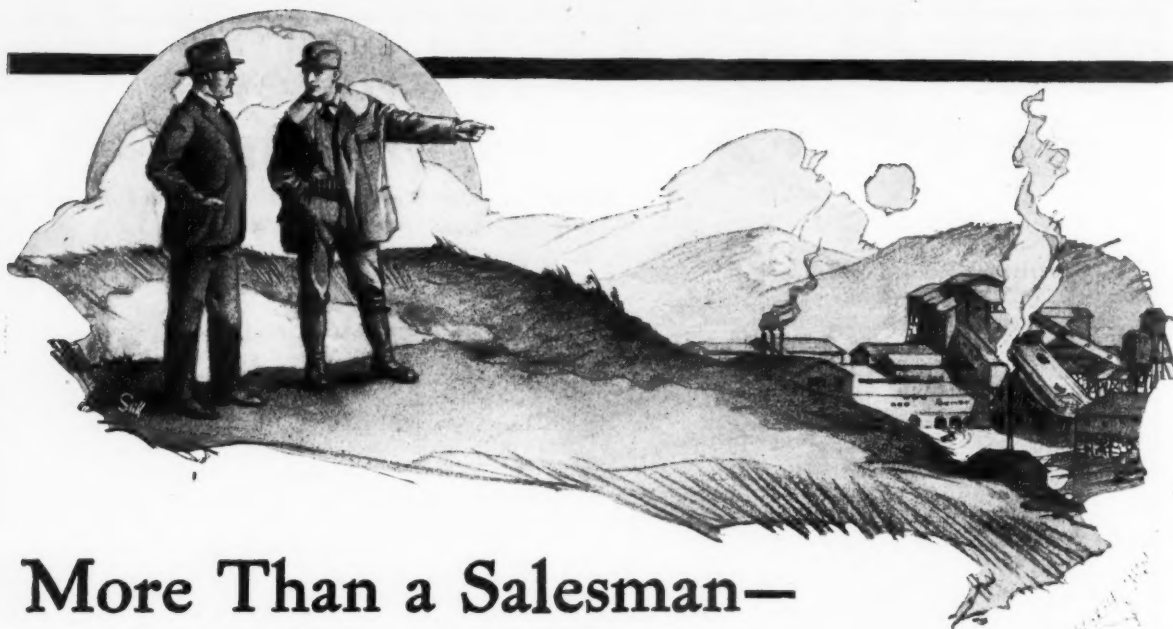


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# Manufacturers Record

Exponent of America

SEPTEMBER 8, 1921.

Volume LXXX

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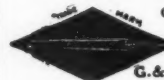
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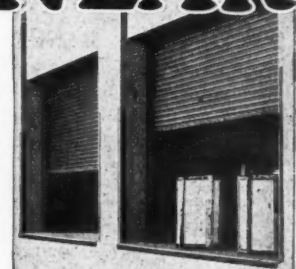
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# Manufacturers Record

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Vol. LXXX, No. 10 }  
WEEKLY. }

BALTIMORE, SEPTEMBER 8, 1921.

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## CONGRESS COWARDLY DELAYS ACTION WHILE MILLIONS SUFFER.

THE Republican party went into power on the promise of President Harding of a protective tariff to safeguard our interests, and a revised income tax scheme to lift some of the deadening load off business interests.

In the meantime nearly 6,000,000 people are out of work. The accursed doctrines of Bolshevism are finding idle hands with busy brains as a fertile field for the Devil's work, for an empty stomach and starving families stimulate brains to evil work.

With 20,000,000 or more people facing a winter of privation unless 6,000,000 can be promptly put to work, Congress cowardly adjourns, seeking its own comfort in preference to saving millions from suffering.

Business halts because no man feels safe in making investments, and no industrial manager feels like taking a risk of improvements without knowledge of what will be the new tariff, the new income tax, the new Federal reserve management and the railroad betterment work. And yet the Republicans are playing for time, wasting priceless hours which mean poverty for millions, holding back tariff and income tax decisions and the Democrats, with the same asininity which has fought a tariff protection for their own people in times past and which permitted those in authority to stop the work of the War Finance Corporation in order to break down agricultural prices by lessening our shipments to Europe, and encouraging those who brought on drastic deflation for the same purpose, keep up their tactics to delay needed legislation to put people to work. Both parties are committing a great crime against millions of people.

In vain will President Harding and Secretary Hoover call a labor conference unless they throw the utmost strength of their influence into a ceaseless, open demand for prompt action by Congress on these vital issues.

## THE ENORMOUS INFLUENCE ON THE COUNTRY'S BUSINESS OF THE ADVANCE IN COTTON.

THE tremendous advance in cotton, which has been adding about \$75,000,000 a day to the value of the present crop and the stock brought over, and which before the rise stops will probably add at least \$1,000,000,000 to the income of Southern farmers over the price ruling two months ago, will quickly revive and stimulate every industry in the South. The War Finance Corporation and the more liberal credit forced on the Reserve Board by the Administration have tremendously aided the situation.

The short crop, added to the amount brought over from previous years, will hardly be enough to save the world from a real cotton famine, such as it has not faced since the civil war of 1861-65. All of the old stock fit to spin and the new crop can be consumed, even at high figures, and leave the world almost bare of American stock twelve months hence, thus insuring, if the South is wise in holding down its acreage, a long period of profitable prices.

The country already sees that the South's cotton crop advance marks the turning point and that from now on things will wonderfully improve.

Even Wall Street now admits that the advance in cotton will probably be the turning point to start the wheels of industry and bring back general prosperity.

Last week we said the South would be the first section to show marked business revival, and now the mighty financial wise-acres of Wall Street are putting forth the same statement.

What this country has needed more than anything else in a material way has been a little injection of inflation in credit and prices. The credit inflation has come through the reversal by the Administration of the former credit deflation of the Reserve Board, and the increase in cotton prices will start a revival for higher prices of farm products and of many manufactured products, and the result will be better times, better employment, and more prosperity for everybody.

Months ago when reporting the change of credit policy which the Administration was inaugurating, we said: "Glory be! the wheels are beginning to turn." They will now begin to speed up.



## BEWARE OF GERMANY'S FALSE TEACHING.

THE singular attitude of mind of the Germans regarding their culpability for the late war is strikingly illustrated in an article in a recent number of *Die Christliche Welt*, one of the leading evangelical journals of Germany. In it the writer, Dr. Johannes Herzog, a prominent theologian of the Ritschlian school, deprecates the effort of English theologians to draw the Germans into any attitude of humility and repentance. He claims that the children of the family of nations have been in a row, and now with their tears and bloody noses they should forgive and forget!

—Watchman-Examiner, New York.

No one should for a moment be surprised at this view of a so-called religious paper in Germany. The failure of Germany to understand the vastness of its crime, and the unspeakable horrors committed by its people, is not surprising to any one who has studied the history of the Hun race for thousands of years. These people have not changed in heart. They have used religion as a cloak for their crimes. They have gloried in crimes, if by committing crime they could conquer other nations and enrich themselves.

Inconceivably great as have been the horrors to the world which have come from this German, hell-made war—for Germany and hell have been synonymous terms for a long time—we believe that the false teachings of German theology, and the atheistic doctrines spread throughout the world by German universities, will do more harm to the world than even its accursed war.

For many years German universities have filled the world with their atheistic teachings. Their doctrines have spread throughout this country. Our universities have been full of them. They have tainted many of our theological seminaries, and many men who stand in the pulpit professing to preach the Gospel of the Christ in which they do not believe.

As the soul is greater than the body, so are the sins of Germany in its corruption of the mentality and spirituality of the world, greater than the crimes which it committed in its murderous campaign to capture and loot the world.

Against all that Germany has stood for in theological teachings this country must ceaselessly fight if it would be saved from destruction. Against the socialistic doctrines spread through the world by Marx, leading straight to bolshevism which Germany encouraged in its effort to break down Russia and other countries, we must stand as a stone wall if we would not see America go down into a ruin as great as that of the chaos in Russia. Exactly the same influences are at work in this country as those which wrecked Russia. Some of them are in the pulpit, clothed in the garment of Heaven in order the better to do the work of hell. Some of them are in editorial chairs, suppressing the truth, but spreading broadcast the false doctrines of Bolshevism. Some of them are in labor organizations, seeking in every way possible to undermine this Government. Some of them are weak minded parlor Bolsheviks, more culpable than the red Bolsheviks themselves.

No one should for a moment be surprised at the statement credited by the Watchman-Examiner to *Die Christliche Welt*, classed as one of the leading evangelical journals of Germany. It voices merely what all intelligent people in this country know is the feeling of Germany. Germany has no qualms of conscience. It has no sorrow for its crimes. The only sorrow it knows is the sorrow of the criminal who has been caught, not because he committed a crime but because he is in the toils of the law.

Germany is at present sowing the seeds of destruction.

It is planning for another war, and it hopes some day to capture and loot Paris as the starting point to world domination. The people of France understand Germany. They know that their safety and the safety of civilization depend upon holding Germany under domination, and in making Germany pay the reparation demanded.

It would be well for the world if the civilized countries would take charge of Germany and hold it under complete domination for fifty years, in order to see if it be possible to teach the rising generation and the generation to come that the criminal who persistently follows his criminality must suffer punishment.

Mr. E. H. Hooker, chairman of the Board of Trustees of the American Defense Society, writing under date of May 6 expresses his opinion in regard to the efforts of Germany to carry on its campaign for the ultimate destruction of France, and says:

"We cannot but deplore the apparent tendency—in seeking a peaceful solution of the controversy between Germany and our recent Allies in war,—to emphasize the doctrines which tend to divide the councils of the Allies. We see no permanent peace in Europe so long as Germany is permitted to remain armed and aided in regaining the economic supremacy which she has heretofore enjoyed and which the facts show has been but slightly interrupted by the War.

"It is but shortsighted policy to foster beyond narrow limits the strength of this most aggressive among the civilized nations. Germany's persistent course of evasion during the past two and a half years, presents a likelihood, testified to by many, that she is in course of preparation for her next aggressive attack upon France. Until Germany disarms, until Germany makes reparation for the wanton injuries she inflicted with intent to destroy the economic life of Belgium and France, no possible reason exists for extending to her the slightest consideration or remission of any penalty.

"The responsibility for future war, the direct responsibility for the loss of some millions of lives in the next twenty years, the responsibility for the fresh invasion of France, for which Germany seems now deliberately preparing, will rest heavily on the conscience of any who aid her criminal designs, whether they do so through ignorance or from pacifistic tendencies."

## UNTIL THE BEGINNING OF ETERNITY.

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De Land, Fla., August 27.

*Editor Manufacturers Record:*

I am inclosing my \$6.50 for subscription, and I trust you will continue sending my Record to the De Land address until I request a change.

I notice from the press that your sermons on the attitude of the Federal Reserve Board for the last year, or from the time this board was created, have begun to bear fruit of the right kind. For the sake of coming posterity and our own safety keep up the fight. For the Lord's sake don't ease up on them one particle!

W. M. POWELL.



## THE DECREASE IN FOOD SUPPLY OF THE COUNTRY.

THE MANUFACTURERS RECORD has called attention to the great shortage in food production, which demands close attention to increased food production, especially by the South, during the next year. Analyzing the food situation, the United States Department of Agriculture emphasizes the fact that the white potato crop this year promises to be only 316,000,000 bushels, or 96,500,000 bushels short of the average rate of consumption between 1905 and 1914, and suggests that with the prospective crop of 33,500,000 bushels of rice, and the considerable crop brought over this year, this cereal should take the place of the shortage in potatoes.

The Department also mentions the fact that the expected wheat surplus of this country is steadily dwindling, and this is in complete harmony with what we have constantly pointed out. It reports that at the average rate, or per capita consumption, of 6.21 bushels for 1915 to 1914 for all purposes the present crop would provide for export under average food conditions only 83,000,000 bushels. Considering the fact that shipments of wheat are now unprecedentedly heavy, and largely because exports for August and September will probably exceed the total of 83,000,000 bushels available for exportation out of this year's crop, it will be seen that the country must draw to the limit upon all of the wheat reserves, and thus go into next year practically bare of wheat supplies. In view of the shortage of our wheat crop for our own needs and for exportation combined, the price of wheat is entirely too low to give the farmer a fair profit, based upon supply and demand. We look for a heavy shortage in the supply of wheat later in the season, and before next year's crop can be made available, with a necessarily higher price for wheat and other foodstuffs.

There is a shortage of over 100,000,000 bushels in apples, a great shortage in peaches and other fruits, and in vegetables. This decreasing supply, far below what we will actually need for our consumption, makes it imperative that the South especially should increase its food production to the limit. The early trucking business in Florida and other states should be vigorously pushed, taking due care, however, that the cost of production be held to the minimum, because while the natural situation of shortage would suggest much higher prices, the enormous number of people out of employment may so lessen the consumptive ability of the country as to hold prices down below what would be the inevitable advance if prosperity prevailed.

With a large citrus fruit crop in Florida, there will probably be a greater demand for oranges and grape-fruit, to take the place of fruits which will be extremely scarce this winter, than ever before in the history of the citrus industry. This should mean very great activity and prosperity for the citrus fruit industry of Florida and California.

## WHY NOT BE FAIR?

President Harding is going to take up the problem of unemployment. Better late than never. The Administration has been a little slow about the matter because any admission that there is widespread unemployment is a blow at the old legend or myth that when the Republican party is in power the country is always prosperous.—*Charleston News and Courier*.

Unfair, if not dishonest, as usual. President Harding fell heir to the chaos of eight years of socialistic labor union domination, free trade tariff work of the Underwood Bill and two years of Democratic credit deflation and only a fool or an ignoramus could have expected any early revival from such chaos. Heaven be praised that we were saved four years more, under Cox, of such a period of disaster piled on disaster!

## THE KIND OF EXECUTIVE AMERICAN BUSINESS NEEDS IN GREATER NUMBERS.

IN an interview appearing in the Wall Street Journal Samuel M. Vaucain, who directs the activities of the Baldwin Locomotive Works, points out that it is the policy of his company to grant liberal credit to deserving customers and that it would be entirely impossible to do business unless there were liberality in credit, a liberality which transmutes itself into dividends for stockholders.

"If business men in the United States today would think more about business and how to get it, they would find there is plenty of work to do," says Mr. Vaucain. "But they must meet new conditions. They must do some of their business on credit. They must realize that other men are just as honest as they are. Business is founded on confidence. The other fellow is honest and will work and pay if given a chance."

Mr. Vaucain naturally does not extend any more credit than is necessary. But Mr. Vaucain, in the opinion of some of his contemporaries, is a very peculiar person. They say in Philadelphia that he is the hardest working man in town. He gets down to work early and leaves late. If there is no business in sight he packs his bag and goes to find it, though it be at the end of the world. Nobody has ever seen Mr. Vaucain leaving his office at two in the afternoon, accompanied by golf clubs, and entering a limousine for a trip to the country club and the nineteenth hole.

It would not be surprising if Mr. Vaucain had said to some of his intimates thoughts substantially of this sort: "How can men be expected to work in a factory and give their best if the gentlemen in charge of the establishment care so little about it that they can golf away hours every week? In the good old days the heads of companies were the hardest workers. The efficiency of the business depended on them, and they knew it. When hard times came they worked harder than ever. They found their joy in their business triumphs. You hear a lot about the inefficiency of laboring men. Maybe so, but some of the critics have not done a full day's work in five years. They have forgotten how to hustle. They want to play. When the cat's away the mice will play. It is an old adage and as true today as it was centuries ago. The genius of American business is not found on fashionable playgrounds. The first people to get to work should be the executives, the higher-ups."

There are many establishments in America the success of which was established by business giants, men who began with nothing and literally battled their way to success. Their successors softened under war contracts. There are some of the oldtimers, retired years ago, who could get back into the arena of trade today and put new life into enterprises the present directors of which are moaning and tearing their hair instead of sweating at their desks. There are hundreds of executives who have not even had the energy to sit down and think out the basic cause of their troubles. They do not know what their own government is doing, and do not care. They buy their thoughts second-hand. Vacation has become the vocation of too many business men and business their avocation.

It is about time for some of the golf fiends and jazz-hunters to set an example to the so-called laboring classes by themselves buckling down to hard work. There is no business in the world so prosperous that it can long survive parasitical direction.

The country needs some more "cranks" of the type of "Sam" Vaucain.



## HOW SAN FRANCISCO IS BREAKING THE POWER OF RADICAL LABOR RULE IN ITS FIGHT FOR THE OPEN SHOP.

**S**AN FRANCISCO, dominated by labor unions of the most radical tendencies, and Los Angeles for many years an open shop town, have been striking illustrations,—the one of the power for evil of labor union domination, and the other of the power for good of the open shop.

Many years ago the Los Angeles Times began a fight in behalf of the open shop. It aroused the bitter hatred of labor unions and in their desperate effort to destroy its power, its building was dynamited and many of its people were wounded and others were killed. One or two of the criminals who were convicted of taking part in the dynamiting of the building have recently ended their penitentiary sentence, while one or two are still in the penitentiary, though if rightly treated they would have been hung for the murders which they committed in dynamiting the building.

Under the influence for good of the open shop, Los Angeles has been growing with tremendous rapidity. Few cities in the world have matched its rate of progress. In population it has far outstripped San Francisco, and its open shop features have drawn to it many great industrial enterprises, while the closed shop and labor domination conditions in San Francisco have driven industrial enterprises away from that community.

San Francisco has, however, determined to break the power and the despotism of labor bosses; and an interesting story of how it is doing this work appeared in a recent issue of the New York Commercial. The experience of Los Angeles as an open shop town should be an inspiration to every town and city in the country, and the determination of San Francisco to save itself from further domination of radicalism should likewise stimulate other cities to the same kind of work.

The story as it appears in the New York Commercial is as follows:

San Francisco is emerging rapidly from the hold the trade unions had on it and bids fair to become one of the most wide-open towns in the United States.

This is the story. About six months ago the building trades unions announced that they would demand a material increase in wages paid to plumbers, carpenters, plasterers, iron workers, textile workers, bricklayers, hod-carriers, glaziers and other artisans. The announcement, coming at a time when San Francisco was troubled with a housing shortage and, when to supply the demands for homes, more buildings were under construction than ever before in the city's history, caused consternation and indignation. Failing to get the demanded wage increase, the union workers went on strike. Attempts of contractors to go on with the building caused riot. Many strikebreakers were killed and maimed. Finally all attempts to resume building operations were abandoned.

After parlaying, an arbitration plan was adopted. A board of arbiters was named. Among those chosen were the Catholic Archbishop of San Francisco, a highly esteemed rabbi, an Episcopalian rector, the President of the Chamber of Commerce and the President of the Building Trades Union. The parties in the controversy agreed to abide unanimously by the board's decision.

After the testimony a verdict was handed down in which all wages of those engaged in the building trades were reduced 7½ per cent. This decision was rejected by the building trades, despite their agreement to accept any verdict given.

There followed more rioting and a period of enforced idleness in building operations.

Disgusted with the hopelessness of the situation, the merchants started a subscription to uproot unionism in San Francisco. The result was that the merchants, the bankers, and other business men subscribed to a fund of \$3,000,000 to be used exclusively for making San Francisco an "open shop" town.

This news staggered the labor leaders and a delegation of union men called on the business men's committee entrusted with handling the anti-union fund and offered to accept a re-

duction of 25 per cent in wages in all lines of the building trades. The business men's committee refused to discuss the matter and announced that there was to be no more trucking with union bosses or union men—that from now on unions and unionism were tabooed in San Francisco, and that skilled workers would get employment at wages commensurate with their ability. They were told also that a larger sum than the amount on hand was promised and would be spent if necessary to uproot unionism from the state and city forever. Confronted with this determination and unable to make any impression on the committee, the delegation withdrew and made its reports to the various locals. The result was that labor leaders and bosses, as well as rabid union men, their occupation gone, withdrew to other and more inviting fields, thereby giving individual non-union artisans opportunity to obtain work. More men are reporting daily ready for work, so there is every reason for believing that unionism is dead forever and a day in San Francisco.

Reading the writing on the wall, the various associations of female workers who had the California Legislature pass a bill making the minimum wage for women workers \$18 a week voluntarily sent a petition to the Legislature asking that the law be revoked and that women workers have the privilege of arranging for their own compensation.

It looks now for the first time in many years, as if the work started nearly half a century ago by the Times of Los Angeles to make California an "open shop" state has been realized. Certainly, the Californians are thoroughly satiated with unions and unionism and it is extremely doubtful that labor organizations ever can regain their power.

## HOW SOON WILL CONGRESS FULFILL PRESIDENT HARDING'S PROMISES?

The J. E. Burleson Mica Company,  
Incorporated.

J. E. Burleson, President.

Spruce Pine, N. C., Aug. 27, 1921.

*Editor Manufacturers Record:*

I fully agree with you in regard to open shops and unionism. Unions today have been responsible for the pressure of business, with what the Federal banks have done also, and sound-thinking men can see that your course in this matter and all other matters are right.

I think that Congress should push up matters faster than they have on the tariff and revenue bills. The people are anxious to know what is going to be done before they will invest much money in business. If Congress is not going to give us a bill for the protection of American labor, how can we produce the raw materials that we have lying idle in minerals and other resources, giving our labor employment in producing the requirements of this country? There is but one thing to do, and that is to enact a tariff law that will equalize the cost of production abroad and at home.

Enclosed you will find check for \$6.50, for the Manufacturers Record another year. Keep up the good work that you are doing and the people will soon see that you are doing more and more good all the time.

J. E. BURLESON.

Nearly 6,000,000 people are out of employment, with all its fearful meaning of suffering and the development of a spirit of Bolshevism, and yet Congress cowardly halts and delays with interminable quibbles to carry out the enactment of a protective tariff bill which President Harding so constantly promised during the campaign.

Mr. Burleson is correct in saying that men cannot invest money and go ahead on business enterprises until they know what tariff and what income tax bills we are to have.

## THE TRUTH FROM WALL STREET.

The First Federal Foreign Banking Association of New York in Bulletin No. 12—

"A year ago the whole world was in the midst of a senseless international trade boom, despite the realization that our deflation policy was sure to unsettle confidence here and result in a world-wide restriction of easy credits."

Here is a frank admission from an authoritative source that it was known that our deflation policy would result in



a world-wide restriction of easy credits. This is exactly what we have claimed from the beginning of the deflation campaign, viz., that it would result in world-wide depression. Confidence was to be unsettled and world-wide prosperity destroyed, and yet members of the Federal Reserve Board and Governors of Federal Reserve Banks have had the effrontery to deny that they had deflated or restricted credits!

### MORETON FREWEN OF ENGLAND ON FEDERAL RESERVE BANK ACT.

FROM an advance proof of a lengthy article in the London Daily Telegraph by Mr. Frewen, we take the following extracts:

"With the enactment of the United States Federal Bank Act in 1913 the great ship of the world's finance had seemed to 'find herself.' It had carried us with such comparative security and smooth working through an unparalleled crisis—a crisis which had clean engulfed Peel's Bank Charter Act—that a clever conservative banker such as the late Sir Edward Holden acclaimed the new American system as worthy of our imitation and as being the true heir of the ages. What, then, has happened in the last few months to disillusion the world of finance and to start in the very heart of its own board of directors at Washington a campaign of criticism so envenomed that it promises completely to wreck a system on which such high hopes were built?

"Your cables from Washington published on Aug. 9, give evidence of the final culmination. The Act being now under examination by a committee of Congress, the present governor of the Federal Bank Board Mr. Harding, proceeded to assault and 'beat up' Mr. John Skelton Williams, the Comptroller of the Currency in the Wilson Administration. The Act, you will recall, makes the Comptroller an ex-officio member of the Federal Bank Board, and it is very important to recognise that in his restrained but terribly outspoken, criticisms of Governor Harding and the board which has been in authority during the Wilson Administration, Mr. Skelton Williams has apparently secured the all-important endorsement of his successor in this high office of Comptroller—Mr. D. R. Crissinger, himself an able Ohio banker. It seems probable that, subjected to this double attack; not only will Governor Harding be forced to resign his position, but that the Act of 1913 will need to be entirely recast. During the past eight years, relying chiefly on the mature judgment of men such as Sir E. Holden and Mr. Clarence Barron, of Boston (and there is no more competent critic living of this Act than Mr. Barron), I have attributed through your columns a measure of efficiency to this new Act which I can now see was undeserved. If it stands on feet of clay, the consequent disappointment is to me very great and even humiliating; but seeing that we in the Empire are now looking round anxiously for a new system of currency to replace that which has broken down, it is very important that we should not, through bland imitation of the United States, overlook the serious and dangerous defects in the Federal Act as it now stands.

"The misery and losses occasioned by the breakdown of the Act of 1913 in the last eighteen months have occasioned hardly less misery and loss than the Great War itself, and the consequences may prove to be not less lasting. Your readers will recall the strong language employed lately by Mr. Reginald McKenna when referring to the great danger of indiscriminating deflation through contraction of credit, and with your permission I will put on record the view of the new Comptroller, Mr. Crissinger, when addressing the Ohio Bankers' Association at Cleveland on July 14, and will then proceed to quote certain passages from a speech of ex-Comptroller Williams, delivered the very same day to farmers and

business men of Augusta, Georgia, and which, it appears, resulted in an attempt to pummel him by his ex-colleague, Governor Harding, in the Committee Room at the Capitol on Aug. 5.

"I pointed out several months since, in your columns, that what really controls the exchanges between the United Kingdom and the United States is the general level of prices in the two countries, and that this price level in the case of America had been so terribly depressed by the 'deflationists' of Governor Harding's school that prices in the United States had been forced down much farther and much faster there than here, great though the general fall of prices had been here. By the light of events we can now see how impossible what is called a 'stable rate of exchange' has become if prices on that great Continent are to continue the mere plaything of a board of directors in Washington, however well intentioned. Thus the Federal Act of 1913 as it now stands can be operated (and by honest if ignorant men) in a way to do inconceivable harm, and not to America chiefly. The cash value of the assets of the United States was subjected by the 'deflationists' last year to a squeeze of more than five thousand millions sterling (this is the figure which now generally obtains in the debates in Congress). Any such figure must, of course, have destroyed the sale of our goods to America, and, as Mr. Crammond pointed out in his able speech to the Institute of Bankers on June 28, the fall of all prices here, though its ratio was immensely less than the ratio of the fall in America, has yet involved a shrinkage of well over a thousand millions sterling in the valuation of our own national income. How utterly out of court, then, are the puny efforts, however praiseworthy in themselves those efforts of the 'Anti-Waste' party here in view of the present financial paramountcy of the Board of Federal Bank Directors 'over there,' whose deflation tactics have availed to increase the amount we owe to our creditors (and remember that our chief creditor is the American nation) by an almost inconceivable sum. Such is the burden too grievous to be borne."

### THE CRIME OF THOSE WHO WINK AT LAW VIOLATIONS.

Commercial and social leaders who scoff at the Federal prohibition law are aiding the cause of anarchy and promoting mob violence, robbery and homicide, it was declared today in a warning issued to the American people by the judicial section of the American Bar Association.

"The people of the United States have undertaken to suppress the age-long evil of the liquor traffic," the statement, signed by Judge Charles A. Woods, of South Carolina, chairman of the section, said.

"When for the gratification of their appetites lawyers, bankers, merchants and manufacturers and social leaders, both men and women, scoff at this law, or any other law, they are aiding the cause of anarchy and promoting mob violence, robbery and homicide.

"They are sowing the dragon's teeth and they need not be surprised when they find that no judicial or police authority can save our country or humanity from reaping the harvest." —Associated Press Dispatch Report of American Bar Association Meeting.

We respectfully refer this to the Baltimore bankers, lawyers, doctors and others who signed a statement that the Volstead law could not be enforced and must therefore be repealed, thus to the utmost extent of their power breaking down law and government and definitely aiding the criminal element of the country in its efforts to destroy all law. No man who signed that statement has any right to object if his bank or his house is robbed, or if his own children become criminals. Those who wink at the violations of the prohibition law, or who sneakily join in disregarding it, it matters not how rich or how high their social position is, are guilty of a criminality which encourages all the widespread criminality of every kind that is sweeping over the land; they become abettors of law violation and encouragers of crime.



## THE ONLY ROAD TO INDIVIDUAL AND NATIONAL SAFETY.

**I**N A LETTER to the MANUFACTURERS RECORD Mr. E. D. Watkins of Irvine, Ky., referring to the tendencies of the hour, writes:

"Radical ideas are being talked (taught) in all the schools but I am surprised that young men should allow themselves to be influenced by any such ideas. I suppose it is the result of the war, something we must put up with until we are able to stamp it out in a proper manner."

Unfortunately the socialistic agitation of the hour has not come as a result of the war. The war has been only one factor in this movement. For a great many years we have had a distinct socialistic trend in the teaching of many of our colleges and universities. Much of this came from the socialistic doctrines preached in Germany and sent broadcast through the world through the followers of Marx. Many of our professors fell an easy victim to these false doctrines, just as some ministers of the Gospel fell easy victims to the atheistic teachings of German universities. Marx proclaimed socialism, and out of that phase of German life has come the Bolshevistic, socialistic chaos throughout the world. German universities and German philosophers denied the divinity of the Bible and proclaimed their atheism until their doctrines reached a point where their influence was felt not only in the secular colleges and universities of the country, but in many theological seminaries and in the pulpit itself.

These doctrines have permeated our educational work for the last 25 years, and during that time there has been a growth of disregard of law and an increase of disobedience in family life. For a long time there was a pronounced teaching 25 or 30 years ago against compelling children to obey their parents. The doctrine was boldly proclaimed throughout the country that children must no longer be forced to recognize parental authority or obedience. It was said that enforced obedience would destroy the child's initiative and will power; and many weak-minded fathers and mothers were led by these teachings to believe that it was better to let their children grow up in disregard of parental authority rather than to enforce obedience upon them. When children have learned disregard of parental authority it only takes a few years more to cause them to disregard governmental authority.

The widespread criminal activities of the day have not come as a result of the war, as some claim, nor as a result of the prohibition law which others are charging with the responsibility for crime. Crime was rampant, and growing more and more rampant long before the war, and long before prohibition became a national law. We are merely reaping today the harvest from the seed which we had been sowing for 25 years or more, the seed of disregard of parental and governmental authority, and the seed which upheld mob law on the ground that quick and immediate lynching would be effective in preventing a repetition of similar crimes by other would-be criminals.

Today our schools are full of radical ideas; and these radical ideas will intensify in school and in general life so long as the doctrines of socialism and Bolshevism and disregard of law are permitted to run their course.

Until men come back to a recognition of the Divine law, until the Ten Commandments and all the Divine teachings connected with them are once more regarded as the commands of the Almighty the breaking of which will surely bring forth due punishment, we shall continue to grow in irreligion and lawlessness.

Until men once more realize that in the sweat of a man's brow must he earn his daily bread, until the command to work, and the example of the Redeemer Himself in his ceaseless work are followed by men, we cannot get back to a zone of safety.

"The world" is indeed, as one writer has recently named a book "at the cross roads;" or, may we change it and say, the world has been walking straight toward a bottomless abyss? It has gone stumbling down the hill that leads to ruin. And yet despite the fact that other civilizations have gone the same way and ended in a bottomless abyss, there are so-called leaders who are saying to the mob, "Come on, come on. This is the way."

Unless the world disregards the teachings of these false leaders and faces about and accepts the Divine law as the only course of safety, we shall follow the road that leads downward to ruin. The Manufacturers Record, however, has faith to believe that men are already beginning to see the light of day. We have faith to believe that the awakened conscience of the world is turning to a recognition of the Ten Commandments and the Golden Rule as the only basis on which civilization can be builded. Without genuine religion, without an acceptance of the teachings of the Bible, there can be no individual or national salvation.

Against the false doctrines of Radicalism and Marxism, against the Bolshevik cry "to hell with churches and synagogues and all governments," we must hold up the standard and proclaim the everlasting truths which have through the centuries come down to mankind by the teachings of the Almighty. From our schools, and pulpits, and theological seminaries must be rooted out the doctrines of Atheism, Socialism, and Bolshevism. They are all of similar birth, and their outcome, if followed to the end, will be the same.

We are optimists as to the advancement of the world and the building of a higher civilization on the wreck and ruin of the war. But we are optimists not because the signs are in evidence, but because we believe that the Almighty is leading us that way. "He moves in a mysterious way His wonders to perform."

We know that civilizations have arisen and gone down in ruin. We know that, despite the teachings of the Almighty, the world sank back into the darkness of the Middle Ages; and we know that there are many evidences that would lead the thoughtful man to realize that what might have seemed impossible has often become a reality. In our boasted civilization we dare to presume to feel that we shall never suffer as the civilization of the Middle Ages suffered. But we need only to study the story of Russia's downfall to realize that there are forces at work in the world which cannot be stayed by the power of man. God alone can stem the current of Atheism, of Bolshevism and of Anarchy. And this, and this alone, gives us the optimism to refuse to admit the darkness of the hour and to believe that the sunrise is just ahead of us. But great is the responsibility upon every patriotic man and woman, every lover of civilization, and of truth and of honor and of religion, to recognize the situation which we confront and by united, ceaseless work help to bring the world back to peace and harmony.



## Placing a Premium Upon Inefficiency and Slackerism in Work.

**L**AST winter a union carpenter, working in a Florida town, was approached by one of his fellow workers and urged to reduce the amount and efficiency of his work, "for," said the second workman, "we can make this job hold out all winter by doing that." The first man replied, "I am a Christian and propose to do my best in the sight of God." Within a few days the Christian carpenter, who was seeking to do an honest day's work for the good pay which he was getting, was dropped by the boss and he found it impossible to get another job in that community where union labor ruled and where inefficiency and slackerism seemed to be the order of the day and in control of the union labor element.

We are reminded of this situation by a letter from Rev. Louis J. Bristow, pastor of the Abbeville Baptist Church of Abbeville, S. C., who writes as follows:

"I have just read your address to the employing printers of Baltimore, as published by Doctor Masters in the Western Recorder. I want to commend your conservatism as expressed in it. And at the same time I desire to express my hearty concurrence with you in your views of the tendency of present-day trades unionism.

"May I give two illustrations: A young man member of my church is unusually efficient as a machinist type-setter. Sitting close beside him was an operator who was slow, inefficient, cigarette-smoking, who "beat" his employer during work hours. The former set an average of one-third more type in a given time than the latter. The employer, also a Baptist, called attention of the union committeeman to the desultory work of the second man, in contrast with the excellent work of the member of my church. The committeeman observed, and coolly informed the employer, that the more expert is in duty bound to bear the infirmity of the weak, etc. (You are familiar with their argument.) The employer thereupon voluntarily offered to pay the expert a higher wage by 33 1-3 per cent. The union then demanded equal pay on the higher scale for the worthless fellow, which was refused, and a strike was called. This last last January. Initiative, industry, care, ambition, individuality, and all other worthy moral qualities thus are quenched by the methods of unionism as practiced in that case.

"Another is that of a deacon in my church. He is a man of education and refinement, and his family are refined, cultured folk. He is a member of his trades-union, which local body respects and honors him. He is and has been for years a representative before his employer-company on behalf of his union and is likewise a member of the general convention of the order. With respect to many policies of the union, this man is completely out of harmony with the rank and file of the members. He tells me that most of the activities of the labor bodies have been a curse to labor. He used his influence to keep his brotherhood out of the American Federation of Labor. He has several times been appealed to by the employing company to use his influence against radical tendencies and demands, and he has done it. Now, this man tells me that the more conservative members of his order are driven forward by the younger members; that they themselves are now past the age when they can take up other work, whereas the younger men have no appreciation of the cares of home and family. He says the brotherhood of today is radically different from what it was when he joined it nearly thirty years ago, and is becoming daily more pronounced in its radicalism. He fears for the future; and, unlike most men employed in his trade, does not permit his sons to enter that work, but is directing them into other lines of service.

"The influence of this man has been such as to effectually prevent radical action by the local union, which is looked upon by the employing company as a bulwark against many evils confronting it. The great pity is that men like him have lost control of the order.

"These two illustrations, which have come under my personal observation, verify your conclusions drawn from observations away up in Maryland, or down in Florida, or out in Colorado, or elsewhere. The South is conservative,

of course. We are not suffering as are other sections. Save for the recent printers' strike we have been singularly free from labor troubles. Our strikes have been only local and sporadic. But the future is ominous with clouds."

Every statement made by Dr. Bristow is true. He puts the facts so clearly that even the wayfaring man though he were a fool could understand them and see the inevitable outcome unless there is a change in the methods of union labor. In the first case an inefficient, cigarette-smoking man, who cheated his employer as much as possible was placed on exactly the same plane of pay as the efficient, honest, intelligent man who was doing a man's work, and when the employer of the latter, by reason of his superior work, offered to increase his pay, the union labor leader refused to permit it unless the inefficient time-robbing man was increased at the same time, and yet union labor leaders profess to work in the interest of laboring men!

As a matter of fact, union labor as now constituted places a high premium upon inefficiency and slackerism and dishonor in work. It denies to the efficient man the right to secure what he earns by faithful, intelligent work and it makes the inefficient, indifferent, lazy workman rather proud that he is paid as much as the efficient man by his side. Instead of seeking to shame the inefficient laborer into doing better work, union labor as now constituted encourages him to continue inefficiently.

In the second case to which Dr. Bristow refers as illustrated in his own church, we have an apt illustration of the fact that labor organizations have been rapidly changing of recent years from the conservatism of early days to the radical methods of the younger generation now controlling them.

Sometime ago we published a lengthy letter from a locomotive engineer who with great pathos told the story of how he and the older engineers who sought to do efficient, honest work were overruled and outvoted by the young radical element which had taken possession of their organization.

The time has come for the people of this country as a whole to study this situation, and study it with great intensity. The nation would be headed straight to chaos if we kept on under the domination of union labor. The untrammelled right of a workman to secure employment without being a member of a labor union and the untrammelled right of an employer to employ men who do not have a union card are two great issues before this country, and upon their settlement will depend the future of the nation.

The man who loafs on his job, the man who does his work inefficiently, the man who tries to obstruct another man's work because he is not a unionite, is lacking in moral principle and until his moral nature is changed he cannot possibly see straight or honestly.

A full day's pay for a full day's work, honestly done, without regard to whether an employer or employee belongs to a union of any kind or not, is the only basis on which we can rebuild American life.



## UNION DOMINATION IN THE GOVERNMENT'S PRINTING PLANT

ATTENTION was recently called in the MANUFACTURERS RECORD to the closed shop conditions in the Government's printing plant, and in reply thereto Mr. Carter, the Public Printer, sent us a copy of a letter which he recently addressed to Congressman Blanton in which the ground was taken that it was his determination to forbid the control of the printing office by the Typographical Union. Mr. Carter in that letter said:

"No inquiry is made by this office as to whether persons eligible for appointment are or are not members of labor organizations. Their eligibility for appointment is determined solely by Civil Service requirements. Nor is there any rule that an employee shall or shall not belong to a labor organization in order to retain his position in the Government Printing Office."

On the other hand, an employee of the Government Printing Office who is opposed to the Typographical Union and believes in an open shop writes us:

"I see from your letter that the Public Printer has taken notice of your interest in the matter and by his reference to the matter published in the *Congressional Record* seems to take it for granted that what we complain of has been remedied. It has not. The union still collects dues, and to all intents and purposes is functioning inside the shop as it ever did. So far as really controlling the activities of the union nothing has been done. The bare truth might be stated in softer words and the actual conditions clothed in milder phrases, but to a man who has any knowledge of printing, who knows what a closed union shop is, needs no explanation why it is necessary that one must have a card to work in this shop. I make the simple statement that no self-respecting American citizen can work in the Government Printing Office without first getting a license from the International Typographical Union. He can 'stay' in the shop, of course, but God Almighty has never yet found a quality of clay that will long stand up under the assaults of ostracism and bloodless methods of silent treatment. The value of what you are doing through the press cannot be overestimated, and if you could personally get some Senators and Congressmen interested we might get more direct results."

This gentleman, who against his will was practically forced to become a member of the union in order to work in that Government shop, sends us a copy of the "constitution and by-laws and rules of order" of the Typographical Union which practically controls the work in the Government Printing Office.

Article 9 reads as follows:

### OBLIGATION FOR MEMBERS.

Every person admitted as a member of this Union shall subscribe to the following obligation, which shall apply only to matters pertaining to the printing industry:

I (give name) hereby solemnly and sincerely swear (or affirm) that I will not reveal any business or proceedings of any meeting of this or any subordinate Union to which I may hereafter be attached, unless by order of the Union, except to those whom I know to be members in good standing thereof; that I will, without equivocation or evasion, and to the best of my ability, abide by the Constitution, By-Laws, and the adopted Scale of Prices of any Union to which I may belong; that I will at all times support the laws, regulations, and decisions of the International Typographical Union, and will carefully avoid giving aid or succor to its enemies and use all honorable means within my power to procure employment for members of the International Typographical Union in preference to others; **that my fidelity to the Union and my duty to the members thereof shall in no sense be interfered with by any allegiance that I may now or hereafter owe to any other organization, social, political, or religious, secret or otherwise;** that I will belong to no society or combination composed wholly or partly of printers, with the intent or purpose to interfere with the trade regulations or influence or control the legislation of this Union; that I will not wrong a member, or see him or her wronged, if in my power to prevent. To all of which I pledge my most sacred honor."

In view of the sentence printed in black type it is not surprising that the writer of that letter recently wrote that no American citizen could take the oath of office to this

country and be a member of the Typographical Union without practically perjuring himself. For here is the distinct statement, which he swears to uphold, that his fidelity to the Union shall in no sense be interfered with by any allegiance that he may now or hereafter owe to any other organization social, political, or religious, secret or otherwise.

That definitely places the Typographical Union membership before the Constitution of this country, above religion and any other thing which might in any way be contrary to the work of the Union as the Union sees it.

This pledge is what members of the Typographical Union generally take. It is an indication of the tremendous force of the oath to which Union printers swear when they join the Union and then to the employer who enables him to earn his daily bread.

No wonder there are men in the Government Printing Office in Washington and in other printing plants in the country who resent with all their manhood and souls the acceptance of any such oath to a Typographical Union as they are required to take if they are members of it.

That such an organization is permitted to operate within the Government Printing Office, and that the men who are non-union in sentiment are ostracized by the officials and members of the union who are permitted to practically control the organization within the Government building is an outrage which Congress should immediately correct.

The printer who has furnished us this information also encloses a copy of a letter which he wrote to Congressman Underhill, in which referring to the letter Mr. Carter, the Public Printer, wrote, said:

"If Mr. Carter means by his statement 'union dues are not collected during work hours,' that they are not paid during the time we are actually reading proof, he is in part correct—not wholly, by any means.

"Last Thursday, pay day, when the bell rang at 11 o'clock for lunch the union collector with his money box and receipt book moved up and took charge of the copy desk, and to all intents and purposes did a regular clearing house business, taking in money and issuing license to employees, giving them the privilege of working for the Government without being ostracized for two weeks longer. During this thirty minutes the Riggs National bank never did a more flourishing business—over and above board.

"I watched this functioning of a business organization, inside a Government department, with deadened amazement and wondered if Mr. Carter really called this 'dues are not collected during work hours.'"

### Negro Advancement Along Practical Lines.

"The Negro Advocate," a vigorous, thoughtfully edited and well-printed newspaper, published twice a month at New Orleans, La., displays in its issue of August 13 a studious care for the advancement of the negro race along practical lines.

"The object of this paper," says Milton S. Hampton, managing editor, in a letter to the MANUFACTURERS RECORD, "is to cement friendship between white and black citizens of the South, pointing out that the way of co-operation is a better way than that of antagonism or denunciation, which characterizes many Northern negro papers.

"We are strongly against the migration of our people to the North or to any other section, feeling that the South presents greater opportunities and greater possibilities, where in a great measure the white people of this section understand the negro, more so than any other people, hence our future must be worked out right here.

"We feel that the solution of the age-old race problem is that of lifting up the masses of our people, having them to become trained workers and to fit into the industrial and economic life of the nation, rather than to look forward to organizations or long range societies and selfish leaders who would stir up hatred between whites and blacks."



# The Rising Tide of Prosperity as Now Evidenced Throughout the South

Throughout the South there are unmistakable evidences of prosperity which advancing prices for cotton will unquestionably accelerate.

Textile mills that have been closed for months are reopening and engaging new operators; others that have been operating at part capacity are approaching a full time basis of operation, and although present prices do not promise big profits, optimism prevails among the operators because of the encouraging outlook.

Sales of Southern pine lumber, which have maintained an almost fixed level since buying was resumed in some volume in the early spring months, have shown a decided increase during the month of August. The report for the week ended August 26 established a new high record, 140 mills reporting sales exceeding 90,000,000 feet. The improvement in market conditions continues. From all sections come reports of increased business; production, however, is curtailed, and there has been an increase in the prices for some material. Hardwood lumber producers feel that conditions are steadily improving and that it will not be long before a steady demand in volume will be manifested.

Reports from the steel and iron producing and manufacturing centers indicate that buying is being resumed slowly but steadily, and as a result production activities have been greatly increased, exceeding in many instances 50 per cent of what they were a few months ago. There has also been a slight increase in prices of some lines. Low rates of steamship lines are boosting the metal trade of the Birmingham district, particularly in shipments of water and gas pipes to the Pacific coast. During two weeks recently more than 7000 tons of water pipe were loaded for shipment to Western cities. Pacific ports recently received 12,000 tons of Ensley rails. The United States Steel Corporation recently received an order for 10,000 tons of rails for the Manchurian Railway, to be shipped to the Orient via Mobile and the Warrior river. The Peking-Suiyuan Railway likewise placed an order for 12,000 tons of steel rails recently.

Municipal, county and State work of every kind is proceeding on an extensive scale. In practically every section new roads are being built, representing expenditures of millions of dollars. In Texas alone there are approximately 2500 miles of highway, for which State and Federal funds are available, now under active construction at a cost exceeding \$30,000,000. In Maryland contracts have been awarded for roads costing over \$3,500,000, and throughout the Southern and Southwestern States this activity is being duplicated in ever increasing volume.

Likewise, many costly municipal buildings are being erected, and county projects are being rushed to completion.

School houses involving the expenditure of millions of dollars are under way in every section. In Baltimore alone more than \$4,000,000 will be expended in new schools and repairs to existing structures. Other cities have programs of proportionate magnitude under way on this class of structures. Aside from the construction of city and county school buildings many established schools and colleges are being improved by the erection of new buildings and repairs and alterations to existing buildings. Every effort is being made to get work of this character in readiness for opening of the buildings this fall.

Hospitals, sanitoriums and other similar structures are being erected at great cost in many localities. This work is being done by municipalities, counties and individual hospitals. Many of these structures will be models of their kind, finely equipped and of elaborate architecture.

Church buildings, costing from \$10,000 to \$1,000,000 each, are being erected in great numbers, the activity in this line probably exceeding any previous period. In some cities more than \$2,500,000 is being expended in church structures.

Association and fraternal organizations are expending huge sums in the erection of meeting rooms and lodge buildings costing from \$25,000 to \$2,500,000. Many of these structures are of elaborate exterior finish and the interior furnishings are notably expensive.

Residence construction is being pushed steadily forward at an accelerated rate. In many cities residence construction activities are unparalleled. Most of the residences are medium priced and would serve to indicate the widespread effect of present improved conditions throughout the section. The reports from many cities indicate that during the first seven months of the year more residences have been erected than during the whole of 1920, and that the amount of money involved exceeds that expended last year, despite the big reductions of from 25 to 40 per cent that has been made in building costs. Likewise the construction of private and public garages is keeping pace with the residence building activities, these structures involving the expenditure in the aggregate of hundreds of thousands of dollars. In many Florida cities the garages being erected are so arranged that the second floor can be used as an apartment and are being so used by their owners until they are able to build more elaborate homes.

Also in the industrial lines there are signs of increased activity. Many new plants are being established for the manufacture of new products and thereby giving work to many persons who otherwise might be unemployed. Established plants are finding that the demand for their products is steadily increasing, although indications are that most of the present buying is simply for replenishing depleted stocks since practically all orders are for immediate shipments. On the face of this it is a very encouraging situation because in the near future, with the resumption of buying in any volume whatever, by the general public, those firms with short stocks, no matter what they are, will of necessity come into the market and thereby increase production activities.

Apparently the spirit of optimism is being born anew. Readers of the daily press are confronted with reports of widespread activity throughout the South. This change is talked of by Southern people and retold in other sections of the country by tourists that have had a chance to see the conditions as they are. Indicative of the activities as now well under way are newspaper dispatches featuring plans for expansion of industries and municipal developments, etc. "New Machinery to be Installed at Cotton Mills," is a headline of a dispatch telling of improvements to be made at the Columbia Cotton Mill, Columbia, Tenn., and "Viscose Co. Buys Plant at Nitro, W. Va.," reports the purchase of a section of the Charleston Industrial Corporation, property to be used in the manufacture of artificial silk. A new mill has been organized at Greenville, S. C., and a new cotton concern has been incorporated at Anderson, S. C. Houston, Texas, is preparing to handle upwards of 2,500,000 bales of cotton averaging 500 pounds each according to reports from that city. "Textile Trade Better in South" introduces "unquestioned evidence that improvement is seen," according to the Knoxville Sentinel. A Charlotte, N. C., paper gives an account of the opening of the Highland Park Mills with this introduction: "1,300 Textile Workers to go to Work Today."

Activity in New Orleans is widespread and new clothing factory, warehouses and many removals to new quarters



show healthy trade conditions, with a gain of millions of dollars of investment secured so far this year according to a dispatch from that city; while from Columbus, Ga., the opening of a big hosiery mill that has been closed down for many months is announced. Georgia marble totaling 100,000 cubic feet has been ordered from the Tate quarries for use in Cleveland, Ohio. A Gadsden, Ala., paper states in big headlines: "Local Steel Business Shows Fifty Per Cent Increase in Past Sixty Days, Official Says." A dispatch from Moore Haven, Fla., tells of the construction work beginning on a sugar mill there, which will have a capacity of from 400 to 600 tons of cane a day. "Metal products Are Now Moving in Growing Lots" says a Birmingham news item describing the loading at Mobile of Birmingham steel and iron for far distant ports. Nearly 500 Clarksburg, W. Va., window glass workers will be given employment when the plants resume early in September, says a dispatch from that city, and another from Wheeling, W. Va., says that extensive improvements have been completed at the flint glass plants near by, and from improvement noticed in demand for different materials it is anticipated that holiday requirements will be big. A large stove foundry at Gadsden will open after a year's idleness early this month. Business improvement in Columbus, Miss., are unmistakably evidenced and the cotton mills that have been closed since March will resume operation shortly. The rice industry in Louisiana has gotten back to normal, according to persons well acquainted with conditions there.

### **Belief That Ford Offer for Muscle Shoals Will Be Accepted Stimulates Real Estate and Building Activities in Tri-City**

Sheffield, Ala., Sept. 3.—[Special]—A recommendation was made to the Government some months ago, that the Muscle Shoals properties be scrapped, and that the unfinished dam be blown up with dynamite to improve navigation. This proposition has been blown into a "cocked hat" by the offer of Henry Ford to purchase the property and operate it on a very large scale.

Continual reports from Washington that favorable action may be expected on the Ford proposal at an early date has caused a spirit of optimism to prevail throughout this section, and as a result much activity is noted in the Tri-cities, which include Florence, Sheffield and Tuscumbia, Alabama.

Business organizations and farm bureaus throughout the South are strongly urging favorable action on the Ford offer. The Birmingham City Commission, the Birmingham Chamber of Commerce the Mississippi Valley Waterways Association, are among those which have endorsed the Ford offer. It is stated by men thoroughly familiar with conditions, that if the dam and plants are finished and placed in operation a large area rich in iron, coal and other valuable deposits, would be quickly opened up for development.

That it is generally believed by the people of this section, and by business men from cities and towns of adjoining states, that the Ford proposal will be accepted by Secretary Weeks, and that Congress will take favorable action at an early date, is evidenced by the number of strangers registered at the local hotels. A number of these have bought business property here the past two weeks, and numerous leases on business property have been taken, with the privilege of buying by Jan. 1, 1922.

Practically all of the real estate firms in Florence, Sheffield and Tuscumbia report a number of sales the past week, ranging from ordinary residence lots to modern business houses.

Acreage property available for sub-division is being considered by real estate operators, and one of Sheffield's successful real estate operators has just placed on the market a number of building lots, suitable for both residence and business pur-

poses. Considerable street improvement is being planned in the Tri-cities, and—as these sub-divisions are opened up, many street extensions will be required.

A number of new buildings are now in course of construction and much general repairing is going on. Many of the parties who bought lots in Florence the past week plan to start building at once.

Congressman E. B. Almon has extended to President Harding the invitation of the Tri-cities and the entire Muscle Shoals district that he visit this section during his trip to Alabama the latter part of October. Mr. Almon says the President not only showed himself as well informed on the Muscle Shoals project, but intensely interested in seeing them completed and placed in operation, and expressed a strong desire to make the visit to the Wilson dam and nitrate plants.

### **Industrial Development Active at New Orleans**

New Orleans, La., August 31.—[Special]—The industrial and business development of New Orleans has gone right ahead during the depression. Many foreign enterprises and industries have established branches or taken the first steps to that end during the first six months of 1921. They cover a wide range. Below are given the principal ones, as shown by the records of the Association of Commerce. No reference is made to the expansion of local enterprises, itself an interesting story. And dozens of small offices are omitted entirely.

Early in the year, the International Harvester Company purchased a site on the river, and announced its purpose to erect the largest twine factory in the country. New Orleans is the logical port through which Mexican sisal is imported. The saving in freight by manufacturing it here will be enormous.

The Marland Refining Company has purchased a site and is erecting a \$2,000,000 oil refinery.

Alcohol will be manufactured from molasses by the Central Industrial Alcohol Company, which has announced that it will establish a large plant here; and from bagasse, the refuse of sugar cane, wall board will be manufactured by the Louisiana Colo Tex Company, thereby turning practically a waste product into a valuable asset, and giving New Orleans another payroll.

Anderson Clayton Company purchased a site on which it is announced large cotton warehouses will be erected.

The International Cork Company has secured a site to manufacture cork crowns for bottles.

The Simmons Company of Kenosha, Wis., is opening a branch here, and will handle through New Orleans a large volume of the business that formerly went through New York to the foreign trade.

The Colonial Chemical Corporation has secured a site, and the Acme Brick Company of Texas has opened an office here.

The Fuller Brush Company has secured a location for establishing an assembling plant, and the American Scrubbing Equipment Company of Hannibal, Mo., has announced it will establish a distributing center here.

The Bemis Brothers Bag Company has decided to center its entire burlap business, formerly handled by ports on the Eastern and Western seaboard, through New Orleans.

The Electrolyte Storage Battery Company has been established here.

The Austin Machinery Corporation and the Brown Hoisting Machinery Company opened distributing centers here.

Among the clothing establishments to decide on opening branches in New Orleans, may be mentioned the Lerner Blouse Corporation, the Stetson Blouse Company, Maison Maurice, and the Porter Clothing Company.



# Pellagra in the South Not a Menace Nor Due to Under Nourishment.

By E. M. PERDUE, D. D. Ph., Kansas City.

A great deal is being printed of late concerning the cause and prevalence of pellagra in the Southern States. This, in the last analysis, is merely propaganda of the Public Health Service. This propaganda is objectionable for the following reasons:

1. As to cause and remedy of pellagra it is wholly untrue.
2. As to recrudescence and prevalence of pellagra it is misleading and alarmist in its nature.
3. It flagrantly misrepresents the South.
4. It creates a newspaper epidemic for the purpose of securing an appropriation of \$150,000.

Formerly pellagra prevailed to an alarming extent in Italy. It was also found in Spain, the Tyrol, Roumania, Egypt and India. Because of its serious prevalence in Italy, it has been carefully studied for many years in the Italian universities and medical schools. Lombroso conceived the idea that it was caused by the ingestion of meal made from partially spoiled corn. Because of his great ability, he was able to secure a wide acceptance of his ideas. He wrote largely upon the subject and in advocacy and defence of his hypothesis. His great work—*Trattato Profilattico Clinico della Pellagra*, Torino, 1892, was abstracted in French by Marie in "La Pallagra," Paris, which in turn was translated into English by Lavinder and Babcock in 1910. This made the theory of Lombroso prominent in the United States at a time when it was of much interest in the South.

Sambon, the great English authority on tropical diseases, advanced the hypothesis that pellagra was a parasitic disease communicated by the buffal gnat or simulum fly. A research covering this theory and many others was undertaken by the Thompson-McFadden Pellagra Commission, whose center of research was Spartanburg, S. C.

These theories never satisfied all the conditions or localities in which pellagra is found. These discrepancies were apparent to scientific workers. Finally a research was undertaken in the laboratories of the Institute of Hygiene of the University of Rome, under the direction of Celli and under the patronage of Cencelli. The research was done by Prof. Giulio Alessandrini, an eminent parasitologist, and Prof. Alberto Scala, one of the greatest, (to my mind the greatest) students of colloidal chemistry in the world. They published their Preliminary Note under date of May 22, 1913.

The writer of this article translated this Preliminary Note into English. Upon the completion of their monograph, Alessandrini sent it together with the half tone plates of illustrations to the writer with the request that he translate and publish it in English. This he did, the while conducting an extensive research in the United States. This he published as Part II of the volume.

During this period the writer wrote quite copiously for the American medical press, his articles appearing in the American Journal of Clinical Medicine and in Ellingwood's Therapist, of Chicago, The New Orleans Medical and Surgical Journal, the Texas Medical Journal, the Charlotte Medical Journal and in American Medicine, New York. The findings met with much approval in the South. Many physicians adopted the methods of treatment suggested with great success.

But the research, being done before the World War, and in Italy and not in Germany, and published in Italian, and not bearing the legend "Made in Germany" was "unscientific." The United States Public Health Service undertook

a "counter research" under Dr. Goldberger. Scurvy was selected as a disease readily produced and easily confounded with pellagra. Arrangements were made with Governor Brewer of Mississippi to permit experiments to be made upon twelve long time convicts in the state penitentiary, on condition that he pardon them at the end of the experiment. These men were fed the same meal three times a day for nine months. This was calculated to kill the most hardy. When one of them developed symptoms of scurvy, Dr Goldberger and his conferees made the previously agreed upon diagnosis of pellagra, and their reports were published and circulated with the prestige and under the frank of the United States Government. These reports contained the monstrous statement and the gratuitous insult that the people of the South are underfed!! Pellagra was classed with the "deficiency diseases." That this theory found any acceptance in the South is unworthy the traditions of a proud people.

Another "counter research" was undertaken at Vanderbilt University, at Nashville, for the purpose of discrediting the findings of Alessandrini and Scala.

Alessandrini and Scala definitely and finally determined that pellagra is caused by drinking soft water coming from clay soils containing no alkalies. The toxic mineral is colloidal silica, derived from the clay in colloidal solution in the water. Soft or "freestone" water will carry about twenty-five parts per million of colloidal silica when there are no alkalies in the water to precipitate it. Colloidal silica has long been known as a cumulative poison. Its symptomatology is identical with pellagra.

They further found that pellagra has a geological-geographical distribution, corresponding to the geographical distribution of certain geological areas, where the soils are derived from the disintegration of the igneous, crystalline and metamorphic rocks, such as granite, porphyry and feldspar. All such soils are clays. The small amount of original alkali in them is soon washed out and the soils become acid. Colloidal silica is dissolved out of the soils into streams, wells, springs and ponds. In the absence of alkalies, this colloidal silica remains in colloidal solution and is taken in the drinking water.

They direct that wells and springs be cleaned out and walled up with limestone; that they be curbed, so that clay may not wash in from the top; that a quantity of broken limestone be placed in the bottom, and that the water be treated with lime. They direct that reservoirs for water supply be walled and floored in the same way and that a considerable depth of broken limestone be placed in the bottom.

After a lengthy clinical research they determined that pellagra is cured by the hypodermic administration of a ten per cent solution of sodium citrate. One cubic centimeter was given daily for fifteen to thirty days, then on alternate days for a similar time. Under this treatment pellagrins recover without change of labor, diet, domicile or sanitary environment. The success of this treatment has been confirmed by numerous Italian authorities. Under the prophylaxis and treatment recommended, Italy was practically cleared of pellagra during the World War.

Pellagra in the United States is an endemic and not an epidemic disease. It is confined to the Atlantic and Gulf Coastal plains, the Piedmont and Ashland plateaus, small areas of the Pacific slope, certain inland areas whose soils are derived from the Pennsylvania shales, and to areas



covered with the glacial drift so thick as to govern the surface water supplies. In our research in the United States we have determined that where the calcium in the soil is less than one half per cent, the region is pellagrous; where the calcium of the soil is between one half and one per cent some pellagra may occur; where the calcium is one per cent or more, there is no pellagra.

In the South there are three areas known as "black prairies". One of these is the area underlaid by the geological formation known as the "Selma chalk" in Mississippi, Alabama and Georgia. Another crosses Mississippi and Alabama further south and is the area underlaid by the "Jackson formation". Another is the "Black prairies" of Texas, an area underlaid by cretaceous rocks. These areas are not pellagrous except where overlaid by the Lafayette formation in sufficient thickness to be the source of surface water supplies.

Comparing geography with geology, this means that pellagra is endemic in Maryland, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Texas, Oklahoma, Arkansas and parts of Tennessee, Kentucky and California. A few cases can usually be found in the Middle Atlantic and New England States, and in Michigan, Wisconsin and Illinois, because of the glacial drift. A few also will be found in Missouri and Southeastern Kansas, where the soils are derived from Pennsylvania shales.

The findings of this research apply all over the world. The prevention and cure of pellagra are so simple, so scientific, so cheap, that they are at the command of all. Every patient in the endemic district can use the measures of prevention—put lime in the drinking water. Every physician can cure the disease by the hypodermic administration of sodium citrate. Pellagra should no longer be a social or economic menace to the South. The stigma of poverty, famine, contagion and pestilence is at once negated by the simple scientific truth. Alarmist propaganda finds no place in view of the facts. Political doctors should no longer be able to deceive the public, the medical profession and the Congress of the United States.

If the measures indicated above are adopted by public health authorities, by the medical profession, taught in the public schools of the South, and practiced by the people in the endemic area, pellagra would soon disappear from our Southern states.

### Extensive Building Program Under Way at Norfolk.

Norfolk, Va., Sept. 2—[Special]—The building situation in this vicinity has assumed a brighter aspect than at any time during the last few years. There is now under way or shortly to be started projects involving the expenditure of \$4,500,000. New residences started in August represent \$200,000, while commercial structures and other buildings will bring the total to more than \$500,000.

Contractors believe that with good weather conditions unemployment in the building trades will be reduced to a minimum. It is predicted that Spring will witness a revival in building activities on a big scale. In addition to the residential and commercial buildings the city of Norfolk is planning the erection of a new market building to cost approximately \$1,250,000. A grain elevator, a large concrete pier and warehouses are being planned by the Port Commission and this development will cost several million dollars.

### \$200,000 Hotel Planned for Princeton, W. Va.

Princeton, W. Va., August 29.—[Special]—Lowrey G Bowling of this city plans the erection of a 100-room fireproof hotel to cost approximately \$200,000. A. B. Mahood, Bluefield, and A. F. Wysong, of this place, are the architects.

### WHY THERE IS WAR IN WEST VIRGINIA.

**United Mine Workers, With Mingo Field, Would Control Soft Coal Industry of United States, Freezing Country into Submission to Their Demands.**

Charleston, W. Va., September 2—[Special]—The revolution against the state and federal governments in which the union miners of the Kanawha field participated during the closing days of August and the opening days of September was nothing more nor less than a part of a well organized effort to force the "Closed shop" on the mines and miners of Logan and Mingo counties, whatever other pretext may have been given as the reason for the civil war precipitated by the United Mine Workers and their leaders. It was an attempt, and not the first one, to accomplish by lawlessness and force what the miners had not been able to accomplish otherwise during more than a year of violence, in the Mingo county coal field.

In that field only a small proportion of the miners desired to become affiliated with the union because they were able to earn more when unhampered by union rules and restriction and frequent strikes. When it became apparent that the attempt to organize the Mingo mines was a failure, violence was resorted to. Mining camps were fired upon and mining equipment blown up. It was necessary upon several occasions to call upon federal troops in order to restore order and at last it became necessary for the Governor to declare martial law in Mingo county.

The mobilization of miners at Marmet and their subsequent attempted armed invasion of Logan county, a non-union, open-shop region, was excused on the ground that it was a protest against martial law. In other words, the miners were bent upon ending martial law through force. The verbal attacks upon the Baldwin-Fells detectives and private mine guards have simply been a trick to excite public sentiment and a pretext for the acts of violence. There are not now and have not been for some time any Baldwin-Fells detectives in Mingo county and in Logan county additional deputy sheriffs have been employed to enforce the law. Where guards have been employed it has been as a protection against the force to which the union has resorted in its attempt to organize non-union fields.

Once the non-union fields are organized, it will not only mean the closed shop and the check-off but it will put the United Mine Workers in a position not only to dictate to the operators but to dictate to the entire country and to freeze the country into submission. With the Mingo-Logan field open shop and producing at maximum capacity, enough coal could be mined in this enormously rich district to break a strike and prevent the freezing of the country into submission to the demands of the union miners. The United Mine Workers of America cannot possibly secure the autocratic control of the soft coal industry of the United States without the Mingo field. With it they can. That is the real motive for the armed attack and for the uprising against the government of West Virginia, the government of the United States and all constituted authority. The United Mine Workers no longer recognize any fealty or loyalty to anything but their union that has been taught them and they regard themselves as superiors to any and all laws.

### Increasing Construction Activity Near Gastonia.

Gastonia, N. C., August 20.—[Special]—Building permits for the month of July totaled \$110,543. With only five dissenting votes Gastonia voted \$500,000 for the construction of a new central high school. On the same day the people of the county, authorized \$800,000 for new highways in addition to \$500,000 recently expended, according to Fred M. Allen, secretary of the local Chamber of Commerce.



# Meaning of the Spanish-Moroccan War and Its Relation to the World's Iron Ore Supplies.

By COURTENAY DEKALB.\*

The newest war is also the oldest war in the world. It began in the year 711 when the Moors were led into Spain by the great Saracen general Tariq and overthrew the Teutonized Spaniards at the battle of Jerez de la Frontera. The modern struggle is more complex, for that early invasion was merely a question of a Mohammedan militant missionary effort against a Christianized Visigothic state, that had dwelt so long in peace that it had literally beaten its swords into ploughshares, and had neglected to maintain its army, or to cultivate a military spirit. Within three years the Saracens had swept the Peninsula, with exception of Asturias, where they were repelled at the pass of Covadonga by Pelayo and his devoted followers. Crossing the Pyrenees the Saracens captured Narbonne in France, but in 732 they were defeated by Charles Martel at the head of the Frankish army in the battle of Poitiers and driven back into Spain.

From that period the history of Spain is one long struggle with the Moors. Though unprepared to meet the first onslaught of the enemy, the spirit of early Christianity was strong in the people, and they persisted in a religious war that ended with the fall of Boabdil and the surrender of the Alhambra to Ferdinand and Isabella in 1492. While the battle was in progress Christopher Columbus waited at Santa Fe, a few miles below Granada, with the promise from the Queen that if the Moors were conquered she

of Europe than anything that the Spaniards had done before. It broke the spirit of the Moors, and convinced them of their impotence.

From that day to this there has been desultory war in Morocco. On her deathbed Queen Isabella reminded the Spanish people that their security depended upon the complete subjugation of the Moroccan tribes. Accordingly the present war is only an acute phase of a contest between Mohammedan and Christian that has endured for 1210 years.

The new phase, however, possesses elements of peril that are far reaching, and that might involve strife between the European nations. Until it became evident that Morocco contained raw materials of exceptional value the



Modern Bridge, Mellia, Morocco, at main entrance to the citadel or citadel, the great fortified rock, captured by Queen Isabella's army in 1496. The new bridge spans a deep chasm, and replaces the ancient drawbridge.

would provide the outfit for his projected voyage into the western seas, and thus the triumph of the Christian wars in Spain led, as a first result, to the discovery of America.

Queen Isabella was a woman of extraordinary political vision, and immediately after her successes in Granada, with the consequent expulsion of the Moors, she sent an expedition into Africa to carry the war into the country of the historic enemy. The fruit of this was the capture of the great stronghold of Melilla in 1496. It was one of the most inaccessible fortified rocks in the world, and the successful siege did more to insure the subsequent peace



MINAS DEL RIF, MOROCCO.

Photographed in July, 1919, by Courténay DeKalb, with Mrs. DeKalb and the mine superintendent in the foreground of Minas del Rif, Morocco, Quarry No. 1, in course of development, getting ready for steam shovel operations. Everything in the ore bank is iron ore, averaging 67% iron. This mine has now been captured by the Moors.

world was content to leave Spain alone in her border warfare against the wild cabilas of the Moroccan plains and mountains. Whatever right she might feel that she had in a country that was as savage as the Dakotas under the Sioux they were willing to concede without question. It was only a religious war, without economic significance, and was accordingly deemed of no consequence. Later France began encroaching from Algiers, largely on account of hostile raids along the frontier, and this led to political claims which had to be adjusted by treaties.

The issue became more clearly defined in 1904 when England, in exchange for the relinquishment of French claims to joint control in Egypt, granted to France a free hand in Morocco. England herself had no rights in Morocco, but it is always possible to give a quit-claim to property that one does not own. This act precipitated a crisis between France and Spain. The end of the diplomatic struggle was a joint convention, the Treaty of Algeciras in 1906, to which England adhered, defining zones of influence, France gaining that part of Morocco lying south of the Atlas mountains, with an outlet to the northern port of Tangier on the Atlantic, with right of way for an internationalized railway to that point, while Spain was conceded control over the northern zone.

\*Mr. DeKalb is an eminent engineer, who made an investigation of Spanish Moroccan mineral resources for the United States Department of Commerce two years ago.



Nominally nothing more than police powers were contemplated, and the Sultanate was not shorn, in theory, of any of its authority, but in effect the Sultan was deprived of fiscal control over Moroccan revenues, and all decrees, or dahirs, were to be presented to him for his signature by the Powers holding the joint protectorate.

It is generally understood that France possessed better information than England at that time regarding the mineral resources of Morocco. Her attempts to restrict Spain to certain narrow zones near the coast cities that the Spaniards had held for generations indicated that she knew something at least of the great iron deposits that have since been partly developed. Failing to acquire authority over the iron belt she won international sanction to the creation of a commission with headquarters in Paris, which commission held the right to issue all mining claims to deposits in any part of the Sultanate of Morocco. They were thus thrown open to the world, in theory if not in fact.

During the World War the Moroccan trouble broke out afresh, through the instigation of German agents. It has been said that France had to maintain two fronts, one in the north against the Germans, and the other in Morocco. At the same time German agents succeeded in reaching the ear of Raisuni, the great Moorish chieftain in the Spanish zone. He had been friendly to the Spaniards after one unsuccessful attempt to rally the tribesmen about 1906. He is a forceful man, of superior education, and of great authority among his people, who recognize in him the rightful heir to the throne of Morocco. His ancestors were for generations the Sultans of the country, and his direct descent from Mohammed gives to him a religious warrant to become the deliverer of his people. His home has been in the western end of the Spanish zone, not far from Tefuan, and for a long time the struggle was chiefly confined to that section. In the east, near Melilla, the tribesmen were driven back with comparative ease, and a frontier line of forts was created commanding the eastern part of the valley of the Kert and the northern part of the valley of the Mulya.

As soon as this section below Melilla had been secured, a group of progressive Spaniards began the development of a remarkable deposit of iron ore in the mountain of Uixán, about 19 miles from the port of Melilla and only three miles from Mar Chico, a deepwater salt lagoon connected with the Mediterranean. This event has had much to do with the recent objection on the part of the Spanish people to sustain adequately the campaign against the Moors, and is in no small part responsible for the apathy that has precipitated the present crisis. These mines only began to reveal their great importance during the World War, at which time German propaganda was intense among the working people in Spain. The laboring classes, from whom the army necessarily is chiefly recruited, were told that this costly Moroccan war was being maintained solely in the interest of a few of the ultra rich, and that their sacrifice on the field of battle was not for the country but merely for the sake of holding mines on behalf of these wealthy adventurers. Accordingly the Moroccan war became unpopular, and successive ministers of war felt restrained from undertaking the active measures that the case required. Even during the recent onslaught of the Moors, when they nearly reached the city of Melilla itself the first manoeuvres of the tribesmen appeared so menacing to the commanding general, Fernández Silvestre, that he appealed to the Minister of War for reinforcements. The working people, led by the perpetual malcontents of Barcelona, made such demonstrations against the dispatch of troops that the delay produced a disaster to the Spanish arms, and came near causing the loss of the citadel that had been conquered by a general under Queen Isabella 425 years ago. General Silvestre himself was killed in battle,

and some of Spanish officers of high rank were sacrificed.

To fully understand the situation it is necessary to recall the Agadir incident in 1911, which nearly precipitated a general European war. A German warship appeared at the Moroccan port suddenly and without warning, and negotiations in progress for tightening the hold of France and Spain on Morocco were called in question peremptorily. Germany was admitted to participation in the deliberations, and her interests were arranged for. These interests consisted in expectations of development of great iron mines through the mountains of the Spanish zone of Morocco.

The famous house of Mannesmann Brothers had long been investigating the mineral resources of the region and had been trading with the tribesmen, offering various inducements to grant rights to the minerals within the dominions of the local sheiks. Many claims for iron mines had been filed with the Commission at Paris, but the question of mining regulations had yet to be settled and German interests might conceivably be affected under the provisions of the decrees that were pending. Germany had discovered that Morocco possessed the most remarkable iron deposits in the world, taking into account the high tenor and great tonnages in the known deposits, and the strategic position of the mines which lie directly on the Mediterranean coast, on one of the greatest highways of the nations and close to the markets of Europe. The Minas del Rif, in the mountain of Uixán, belonging to a Spanish company, have developed 30,000,000 tons of ore that averages above 60% metallic iron, with less than 0.03% each of phosphorus and of sulphur.

The area explored represents only the merest fraction of the entire ore body, and has not touched anything but the detrital material. The ore in place, which has been explored by shafts and tunnels, shows immense masses of pure hematite averaging 67% metallic iron, and lower in phosphorus than the "chirita" or detrital ores. Only a few miles beyond is the Mountain of Kerker, with iron deposits which promise to be even larger than the Minas del Rif.

The entire region from Melilla westward to Alhucemas, is reported to be full of similar deposits, many of which had been investigated by the engineers of the house of Mannesmann. From notebooks and other papers belonging to these engineers, which have come into possession of the Spaniards, the richest deposits appear to lie in the range along the northern coast not far from Alhucemas. The crafty tribesmen had been deriving revenue by assassinating these engineers and bringing their records into Melilla for sale. In many cases these papers included plots of surveys and full data for recording the claims before the Paris Commission.

The present situation is peculiarly dangerous. Morocco is recognized to have immense deposits of high-grade iron ore, and all the nations are covetous of it. Germany, having lost her stolen iron mines of Alsace, is naturally eager to create trouble, hoping that out of it will fall some good to her. France has long had her eye upon these mines, and was seeking to establish a hold on all kinds of business in Morocco by means of banks, such as the one recently opened in Melilla. England, now nearly destitute of domestic iron ores, and dependent largely on Spain and the Scandinavian countries, is regarded as being keenly interested in the outcome of the Moroccan trouble.

Not long ago she sent various representatives, technical and military, to that country, through the courtesy of the Spanish government, and rumors have been rife ever since that England would at any time extend aid to Spain in her campaign against the Moors. This would arouse hostility on the part of France, and it is not improbable that the difficulty early in the summer over port concessions at



Tangier made by a dahir of the Sultan to a French company, was intended to strengthen her hold on that city, which, by the Treaty of Algeiras of 1906, was placed under the joint administration of Spain and France.

It has long been common knowledge that German agents in Spain had been smuggling arms into the great mountain complex, called the Serrania de Ronda, in the southern province of Malaga, whence contrabandistas smuggled them out to sea where they were taken by vessels to be landed on the wild, rough Moroccan coast for the Moors. Hints have been thrown out also that arms were easy to get across the river Muluya from the French Zone of southern Morocco. It is another case of intrigue among the nations for the possession of natural riches in the territory of a country too weak to administer its own affairs and sustain its independence. This makes it dangerous to the peace of the world.

During the outbreak of the Moors in eastern Morocco the cable brought the surprising news that the great Spanish statesmen, the Count of Romanones, had said that the best course for Spain was to cede Morocco absolutely to France. Such an act would produce at once a violent dispute between all the great Powers. Safety depends on sustaining the rights of Spain, even if it be done through some foreign alliance, such as an understanding with England. On July 28, however, the Count of Romanones declared over his own signature: "I never proposed the cession of the Spanish rights in Morocco, not for a million pesetas, nor for a hundred millions, nor for anything, because they involve something of immeasurable value. I have always insisted on maintaining a good understanding for cooperation with France, but each in its own zone. The lesson learned today by Spain is one of many incidents of the war. Spain will recover the lost ground without serious effort, and will dominate the zone completely. The means and the determination are more than ample." Nevertheless, when the Spaniards are defending Nador, six miles from Melilla, the case is one that calls for heroic measures.

The tribesmen in the east are said to have been mustered by Abd-el-Krin, a Moor of high education, obtained in the University of Madrid. He is an engineer, and also a man of wide culture, as a pastime translating Don Quixote into Arabic. He has been in touch with the outer world as recently as July 4, when as a seeming friend to Spain, he was interviewed in Melilla by Ramiro de Maeztu. He suddenly disappeared, and it is now reported that he is cooperating with Abd-el-Malek, a fierce and relentless chieftain. It is supposed that Abd-el-Krin, though believed cordial to Spain, was actually engaged in arranging for supplies of arms and ammunition before attempting an assault upon Melilla. The beginning of the movement by the tribesmen was made on June 25 at the frontier post of Abarran, where the success of the first attack was won by the treachery of a village of Moors that had long professed friendship for the Spanish. They even brought news of the intended attack and begged ammunition for defense. As soon as cartridges were issued to them they took up a position on a neighboring hill from which they were able to dominate the Spanish position. The entire Spanish garrison, including the officers, was destroyed. It was at this time that Gen. Silvestre besought reinforcements, and the demonstrations of the working people restrained the Minister of War. The result of this timidity was to cause the downfall of the cabinet of Allendesalazar.

Maura is now in control at Madrid and a firmer policy is anticipated. Should he fail to inaugurate a campaign, planned, not only to check the Moors, but to carry on the war to a finish, it is practically certain that the Count of Romanones will again be called to form a cabinet. He is a man of great force, a strong friend of France, and

therefore one who can secure cooperation with that Government when others would not so easily succeed. Moreover, Morocco is hallowed soil to him, for one of his sons gave up his life in a bold assault upon the Moors only a few months ago. No one understands the Moroccan question better than he, and none appreciates more perfectly that in securing harmony among all the Powers, and in taking a firm stand to carry out Spain's obligation to establish peace in Morocco, the peace of the whole world will be ensured against the results of greed that would become apparent as soon as it was evident that Spain could not or would not comply with the obligation placed upon her shoulders by the Treaty of Algeiras.

### Outline of Business to Come Before International Chemists at New York Meeting.

New York, Sept. 3.—[Special]—Preparations are complete here for the meeting on Tuesday, September 6, of upward of five thousand American, British, and Canadian chemists. The meeting has been characterized as the greatest and most important gathering of chemists ever held in the United States, and included among its delegates are men who are recognized the world over as leaders in the industrial phases of their science.

Governor Nathan L. Miller will welcome the British and Canadian visitors to American soil on Labor Day, and with him on the reception committee are S. R. Church, chairman of the American Section of Chemical Industry; Edgar F. Smith, president of the American Chemical Society; Dr. David Wesson, president of the American Institute of Chemical Engineers; Dr. Acheson Smith, president of the American Electrochemical Society; and Dr. Ira Remsen, Dr. M. T. Bogert, and Dr. William H. Nichols, past presidents of the American Chemical Society. At Niagara Falls, where the visitors will be welcomed, the reception committee will be assisted by A. H. Hooker and E. G. Rippell.

The sectional meetings will be held at Columbia University, which has also offered use of its dormitories, and it is expected that hundreds of the visitors will take advantage of the opportunity, so as to be near the various sessions.

The outstanding feature of the meeting from the standpoint of the public is the international meeting on Thursday, with "Chemistry and Civilization" as its topic. The general subject will be treated by Dr. Edgar F. Smith, who will be followed by eminent chemists from Great Britain and the United States. This session will be held in the Great Hall at the College of the City of New York, and this vast auditorium is expected to be filled to capacity.

On Friday, another public meeting of interest will be held, at which Dr. Smith will deliver the President's Address on "Progress in Chemistry."

During their stay in the city, the chemists will visit a number of the large industrial plants in New York and vicinity, and will be given receptions and sight-seeing tours that will occupy all the time they are not attending some of the many divisional meetings.

Of unusual interest will be the sixteen papers to be read upon various phases of agricultural and food chemistry, the twenty-four papers upon sugar chemistry, the twenty-one upon dyes, the forty-one upon organic chemistry, the thirty-one on biological chemistry, the forty-eight upon physical and organic chemistry, the twenty-four upon leather chemistry, the eleven on cellulose chemistry, the twenty-one on rubber chemistry and the ten on chemical education.

In the Division of Industrial and Engineering Chemistry sixteen papers will be read on filtration, and there will be thirty-five papers upon the chemistry of gases and fuel, in addition to four major addresses upon main divisions of the subject. Twenty-one papers will be heard upon fertilizer chemistry, twelve upon petroleum, seven upon water, sewage,



and sanitation, and thirteen upon the chemistry of medicinal products.

At all the divisional meetings English and Canadian chemists will take part in the discussions, thus bringing to bear upon present-day problems of chemistry the best thought of the three nations. Running through the entire convention, too, will be the thought of Anglo-Saxon unity, and more nearly complete co-operation between American and British scientists.

Leaders in the American Chemical Society deem the meeting of great and far-reaching importance because it comes at a time when industrial chemistry in the United States, which made such rapid progress under the stimulus of war, is fighting hard to keep alive, and they hope that the convention will bring to the attention of the American public the need for further aid to the science that is an essential part of 85 per cent of modern industry in peace times, and of even greater consequence in war.

The business sessions of the convention will conclude Friday evening. A program of entertainment has been provided for the delegates Saturday and the following Monday the Chemical Exposition opens, for which many of the visitors are expected to remain in a city at least a part of the week. The Exposition is to be one of the most comprehensive yet held.

### Building Operations in August Extensive in Southern Cities.

Building operations in Southern cities during August are briefly summarized from reports issued by the building inspectors of the respective cities as follows:

Richmond, Va., 226 permits; valuation \$883,000; five brick dwellings, \$34,000; 35 frame dwellings \$153,650; 2 school buildings \$219,490.

Baltimore, Md., total valuation \$2,301,240; in the new annex the total included: 13 brick dwellings \$66,000; 71 frame dwellings \$336,000; 1 factory \$60,000; in the city proper the following activity was reported: 32 brick dwellings \$172,000; 23 frame dwellings \$137,000; 1 synagogue \$174,000; 1 church \$45,000.

Nashville, Tenn., total valuation \$640,000; 66 residences, 18 brick and 48 frame. August 1920, valuation \$148,885; total to date 1921, \$2,278,685, representing a gain of more than 25 per cent over last year's figures.

Miami, Fla.—Indications are that by November 1st the valuation of permits here will exceed \$6,000,000, the total already being nearly \$4,000,000. The summer building activity is shattering all previous records. Many buildings, apartment houses and hotels are under construction in addition to many dwellings, costing up to \$50,000, each.

Memphis, Tenn.—Building program here is steadily assuming large proportion. Cottages and bungalows are arising in all parts of the city; many department houses are being built ranging from one to 6 stories high.

### Plan \$1,000,000 Refinery for Houston.

Houston, Tex., Sept. 2—[Special.]—Construction work on the new sugar refinery here will probably be started about the first of the year, according to W. J. Doyle, Industrial Comr. of the New Orleans, Texas and Mexico R. R., W. M. Bancroft and associates are interested in the development. On a tract of about 6,000 acres of sugar cane land approximately \$850,000 has been expended for power houses, public plants and other necessary improvements including the planning of 1500 acres of sugar cane. It is said that in some cases the production of the valley land is 5,000 pounds per acre. The proposed refinery will cost in the neighborhood of \$1,000,000.

### Montgomery Ships Complete Train Load of Lumber to Eastern Market.

Montgomery, Ala., Sept. 1—[Special.]—A solid trainload of lumber, consisting of thirty cars, pulled out of Montgomery last night for the Eastern market. The cars were assembled in Montgomery by the Atlanta and West Point Route under the direction of Fred Bennet, general executive agent in Alabama for the system, and the lumber is being shipped by the W. L. Sheppard Lumber Co. to their New York representatives who will distribute it in New York and New Jersey.

This is declared to be the first time that a trainload of lumber ever went out of Montgomery and probably out of the South, under the direction of one company.

As agreeable as the news of improved business conditions will be, Walter Sheppard states that it merely marks the inauguration by his company of a regular schedule. From now on, he says, they will run a trainload a week. This train will carry approximately 750,000 feet of Alabama pine to the Eastern market.

The Sheppard company has already shipped 173 cars of lumber this week but not in trainload lots. Mr. Sheppard says the demand for lumber is strengthening steadily, as shown by the large demands upon his resources. He bought the lumber at various points in Alabama and has had it assembled in Montgomery.

This information is regarded locally as a heartening sign of improved business conditions. It accompanies the information that yesterday cotton sold for 14 cents a pound in Montgomery, another hopeful sign of better times.

### Additional Contracts Awarded in Missouri for State Highway and Bridge Construction.

Contracts recently awarded by the Missouri State Highway board for road and bridge construction in various counties approximate \$250,000 and include the following:

C. P. O'Reilly & Co. of St. Louis at \$18,039, 3.48 miles in Perry County; A. P. Nolan Grading & Construction Co. of St. Louis, at \$22,351, 1.53 miles, and G. E. Sampson, St. Joseph, Mo., at \$15,634, .62 miles, both roads in Grundy county; Albert Hood, Independence, Mo., at \$13,809, 4.21 miles in Lafayette County; Diemer-Williamson Construction Co., Brookfield, Mo., at \$11,985, 3.63 miles in Saline County; Miller Construction Co., Springfield, Mo., at \$24,663, 4.94 miles in Polk County; M. B. Nuss, Nevada, Mo., at \$8,998, 2.38 miles in Cass County; W. P. Robertson, Caruthersville, Mo., at \$11,659, 5.24 miles in Pemiscot County; E. C. Johnson, Jefferson City, Mo., at \$10,313, 2.51 miles in Cooper County; S. P. Reynolds, Caruthersville, Mo., at \$26,348, 2.44 miles in Genevieve County; W. A. Ross, Kansas City, at \$19,347, 3.76 miles in Lincoln County and at \$17,485, 1.04 miles in Warren County.

Two contracts for bridge construction in Grundy County were awarded to the St. Joseph Structural Steel Co. at \$26,823 and \$22,298, respectively.

### Warrior River Barge Line to Handle Cotton Into New Orleans.

New Orleans, La., Sept. 2—[Special.]—A new cotton handling line will be inaugurated by the Warrior river division to take care of cotton from points in Eastern Mississippi, Ala., and Western Georgia through Birmingham, Tuscaloosa and Demopolis. Accordingly rates have been reduced about 20 per cent below the existing railroad rates. The rates include fire and marine insurance while the shipments are in the hands of the barge line. The equipment to be used consists of three self-propelled barges with cargo houses having a capacity of 750 tons each. Within a month an additional barge will be ready for use.



# The Open Shop as Viewed by Employers Throughout the Country

[Since the announcement by the Manufacturers Record of the fight of practically all operating printers in Baltimore against the 44-hour demand of the Typographical Union and the determination of Baltimore operating printers to work on the open shop basis, the Manufacturers Record, because it has been fighting for the open shop for many years, has been overwhelmed with letters coming from business men in all parts of the country. The subject has commanded the thoughtful attention not only of employers of labor, but of teachers and ministers and others who realize that the union shop, as now dominated, is a distinct and definite plan for breaking down efficiency of labor, lessening the productive power of working men, and, therefore, lessening their moral stamina and their sense of right and wrong, and they have been as deeply interested in all phases of this question as have employers themselves.]

Some of these many letters have been published from time to time, beginning in our issue of July 7. —Editor Manufacturers Record.]

## Time to Call a Halt.

J. F. Worsley, Ltd.

Railroad Contractors—Logging Equipment.

Atlanta, Ga., June 22, 1921.

We are heartily with you on the open shop question, and think that when the time comes that a body of men banded together under the so-called union principles can dictate to another man whether or not he shall accept a position which is entirely satisfactory to him, that it is time to call a halt. In our line of business we come constantly in contact with (McAdoo) model of mechanics who carry a card, which causes all real mechanics to turn their heads in shame when they attempt to work along side a McAdoo card machinist or boiler maker.

We trust that the Manufacturers Record will continue its fight, and as usual right will triumph in the end.

J. F. WORSLEY,  
Sales Manager.

## Fairness and Justice in the Open Shop.

The American Chemical and Sugar Machinery Co.

Philadelphia, Pa., June 15, 1921.

We have your letter of June 13 which refers to the question of labor unions. The position which you assume is one which every reasonable person can support. One does not have to be an employer to see the fairness and justice of your argument, and we wish to compliment you on your clear statement of the case.

ALLEN C. WOOD,  
Secretary and Treasurer.

## Favor Open Shop.

Southern Spindle and Flyer Company.  
Cotton Mill Machinery.

Charlotte, N. C., June 16, 1921.

We are in receipt of your letter of the 14th in regard to the open shop which you are fighting for.

We wish to advise that we are in favor of the open shop and trust that you will be successful in your campaign.

WM. H. MONTY,  
President and Treasurer.

## Rewards Efficiency.

H. T. Lambert Company.

Huntington, W. Va., June 21, 1921.

We are at all times for the open shop plan as the workmen will have a greater incentive for work and for promotion. When we start our factory we expect each man to own one or more shares of stock in our company, and to eliminate his affiliation with any and all unions as far as that concern is ours while he is employed with us.

H. T. LAMBERT.

## Offers Best Co-operation.

R. W. Wier Lumber Co.

Houston, Tex., June 20, 1921.

We have something like six hundred employees, and ours is a non-union job. I wish to assure you that your movement will have our best co-operation.

R. W. WIER,  
President.

## Spread the Doctrine of Americanism

The Hadfield—Penfield Steel Company.

Bucyrus, O., June 20, 1921.

I agree with every word that you have put forth in your letter of June 11, and congratulate you upon the fine articles and the excellent work you have done to date, through the medium of your paper.

In connection with your stationery and your wording "Exponent of America", of which you may be justly proud, we might suggest an edition of America, or Americanism, because in the articles which you have been putting forth, we doubt whether any paper in this great United States, is doing more real work than is yourself.

Again congratulating you and assuring you that we shall be pleased to render all the support we can to you, or shall be only too glad to be called upon to do anything we could in connection with this work or to assist you in any way, we remain, etc.

R. O. PERROTT,  
Secretary and Resident Manager.

## Open Shop Principle Certain of Success

Tampa-West Coast Realty Co., Inc.,

Tampa, Fla., August 23, 1921.

We are glad to notice in your issue of the 18th that you have "returned to your own home town," and are now getting all mechanical work of your publication done in an American shop.

We heartily congratulate you—not so much on your success as on your "backbone"; your success in winning out for such a principle was sure and certain, with the proper display of independence.

And all other shops and businesses throughout the country, now controlled by walking delegates and labor unions, would win in the same way, if they only weren't so easily bluffed by a lot of wild anarchists, slackers, loafers and time-killers.

But don't let up on your fight. This Open Shop (American shop is really what it is) matter must be kept open.

It is a pity that every misguided labor union member throughout the country could not read your article on page 59, issue of the 18th—"The Right to Work."

With all good wishes for your continued success and good influence.

S. H. MOORE,  
Manager.

## Fall Buyers Convention Sales at New Orleans Total \$1,000,000.

New Orleans, La., Sept. 2—[Special]—Buying nearly three times as much as they did in the Spring 450 merchants from Louisiana, Mississippi, Alabama, Florida and Texas who attended the Fall Buyer's Convention at New Orleans, just held, showed that conditions throughout this section of the South are rapidly getting on an even keel.

It was noted that they bought a better quality of goods than they did in the Spring, and purchased heavily and conservatively at the same time. Total sales are conservatively estimated at \$1,500,000.

All the merchants reported that the crops are moving, and are bringing better prices, and that credit conditions are better.



# NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

## We Teach Our Americans No Law in the Schools, Yet Severely Punish Violations of Law.

LIDA B. ROBERTSON, Bishopville, S. C.

Millions in our midst, born under foreign flags and laws, and millions more of our native-born Americans care nothing for the Bible and its teachings of high standards for individual character, nor for our inherited American ideals and integrity.

There are 25,000,000 young Americans under 25 years of age who have no moral affiliation with existing religious Bible-schools, called Sunday-schools to learn moral law. There is no teaching whatever to them of the simplest civic laws, despite our vast output of money in schools, to inculcate the simple laws and the penalties therefor, to impress the dignity of the law and the power to punish law violators, and prepare them to recognize and realize that they are under authority and must obey the laws or be meted punishment. There is no such provision in all the curricula of the forty-eight states.

Volumes and volumes of text-books called "civics" are jammed into the schools upon the "science of government," studied and glibly memorized, but no laws themselves to warn and to inform every person under the flag, of the penalties involved. For example, the penalty for the theft of milk from the door-step of a home is very severe in my home city. This is necessary for the protection of the babies. Two youngsters, one thirteen and one fifteen, "pals," ran away from their homes to the city, became desperately hungry and the older one stole a pint bottle of milk from a door-step. Together they drank it and threw the bottle away. They were promptly caught, and brought before the city court. The elder boy like a man asked that no punishment be passed upon the younger lad declaring that he himself stole the milk and drank half and then handed the other half to his companion. They were not evil boys, but the "law" against the theft of milk was rigid and the lad was sentenced to six months of hard labor in the penitentiary. The other was freed. A fine railroad president saw the account in the paper and rushed down and paid the fine, but there was no way to liberate the boy except through a pardon by the governor which he procured and released the lad.

I could give criminal cases which cannot be put into print, of the young, black and white, because they knew no moral code and no law. They had not been taught that it means death.

I viewed a movie recently purporting to be a "reform" picture in which the "reformer" had to be guilty of a broken law to get into the institution. Theft was made a huge joke in shop-lifting, which failed. Then the young girl seized a brick and flung it into a large store-window exhibiting jewels. Catching up some watches with their dangling chains she faced the policeman. And the audience was full of young Americans viewing this picture making theft a joke, before them.

How can we rely upon or expect a stable republic when we teach no civic laws to our young, and the universities of the nation ridicule and repudiate the great moral law-book, the Bible, and teach no simple civic laws in its place, whatever; just vague remote "psychology"? What good did "psychology" do the hungry lad who broke a city law, and what good did psychology do to keep him from severe punishment as a result of the broken law,—a law of which he in boyishness was wholly ignorant?

In our vast youth, and adults too, in America, I wonder

how many know the gravity of the simple laws of forgery,—the signing of somebody's else name for his or her own? The difference between petit larceny and grand larceny, and the sentences under each as to severity? Slander, circulating lies about another? Resisting an officer? and if a sheriff calls for help from any citizen, how many know it is a violation of law and a penalty for said citizen to refuse to aid? How many know the gravity of bribery; paying money to jurors, or election inspectors to induce a decision in your favor? Shop-lifting, cutting timber on Government lands, misuse of the United States mails to defraud? Sending vulgar language through the mails? Criminal assault, white slave traffic and a host of other everyday laws?

Intellectual surveys of "crime waves" or the psychology of scientists offers no solution; it is like telling a dying man he is dying; he knows that; what he wants is to be told how not to die. Look the matter squarely in the face. It is preposterous for "intellectuals" and scientists to be philosophizing about crime and criminals when we have not a school in America, save law schools for lawyers, teaching definite simple laws to young America of today, those who are to be our leaders, citizens, and voters of tomorrow, to post, forearm and inform them and to require the simple laws to be learned to impress the dignity and the gravity of civic law to tell them that "liberty" is not a do-as-you-please license, and those who disdain law are outlaws and those who defy law must either end in the penitentiary, or go somewhere else to live.

## Books for Library Needed.

WM. T. LANG, Washington, Georgia.

I read with much interest your forceful letter to President Harding in your issue of August 4. Evidently you have at last driven home the necessity of a change in policy of the Federal Reserve Board, but I fear it has come about only after serious damage has been done. The country will hail with delight the "right about front" forced upon the Board. Keep your eye on them—they need it!

Another matter. While I am no longer listed among your subscribers though I was there many years, I still have the pleasure of reading your valuable paper. I am now on the down grade line of life's journey, and spend many evenings reading in our beautiful little memorial library "The Mary Willis." The Library is kept up by a small endowment fund and needs help. I never enter its doors of a quite evening that I don't go straight to the pile of Manufacturers Records, and I never leave after reading your last issue without feeling refreshed, as I did in the "Days O'Auld Lang-Syne" when I sat down with a few warm-hearted friends to a good dinner and a bottle of champagne. It's easy to make myself believe I'm young again!

I wish I could get some philanthropists, whose bank account is an encumbrance to them, to make our little library a present of a few of the best books extant. Try if you cannot interest some kindhearted lady or gentleman who is fond of doing good deeds to get in touch with me, and I will tell them what it needs.

I know many silent prayers would go up in thanks to them, and they would never be forgotten—in one of the oldest, most beautiful and aristocratic little cities in these United States.



# LUMBER AND BUILDING MATERIALS

## Record Sales of Southern Pine Indicate Revival of Buying in Bulk.

New Orleans, La., September 2—[Special.]—A new high record for sales of Southern pine lumber established for the week ended August 26 when 140 mills reported total sales of 4,200 cars containing 90,673,000 feet. And this high record follows sales for the week ended August 19 when 130 mills reported sales totaling 3,740 cars containing 80,742,860 feet. The sales of lumber for the week ended August 5 averaged 496,467 feet, on August 12 they averaged 501,857; on August 19 the average sale per mill was 621,099; while for the week of August 26 sales per mill averaged 647,670. The average sales per mill increased during the month of August 150,000 feet.

Production, however, is still keeping a low level, compared with shipments and production. The average shipments per mill for the four weeks in August are: 513,318, 522,301, 548,195, and 556,842. The average production per mill during August is as follows: 503,754, 491,734, 521,068 and 511,780 feet.

The report for the week ended August 26 is as follows:—

	Cars	Feet
Orders on hand beginning of week	9,380	202,504,820
Orders received during the week	4,200	90,673,800
Total	13,580	293,178,620
Shipments during week	3,611	77,957,879
Orders on hand end of week	9,968	215,220,741

The production of 140 mills was 71,649,172 feet. The increase in the orders on hand during the week was 6.28 per cent.

The report for the week ended August 19 is as follows:

	Cars	Feet
Orders on hand beginning of week	8,579	185,212,031
Orders received during week	3,740	80,742,860
Total	12,319	265,954,891
Shipments during week	3,301	71,265,289
Orders on hand end of week	9,018	194,689,602

The production of 130 mills for the week was 67,738,885 feet. The increase in orders on hand for the week amounted to 5.12 per cent.

## Progressive and Compartment Dry Kilns Compared.

All dry kilns now on the market are either progressive or compartment kilns. In the progressive type the drying conditions increase in severity from one end of the kiln to the other, the material being moved into severer conditions as it dries. In the compartment type the same temperature and humidity prevail throughout the kiln at any one time, beginning with mild conditions and increasing in severity as the material becomes dry.

The kiln-drying data and experience of the Forest Products Laboratory indicate that each type has particular advantages on certain points, as follows:

The progressive type of kiln requires less skill in the operator. It consumes less heat per pound of water evaporated from the wood, but the saving of steam possible should not be considered so important as the question of ability to perform the work required with the best results. The progressive kiln reaches its greatest heat efficiency in drying from the green state and is most useful in circumstances which permit of its being supplied continuously with green lumber of one thickness and class. It is, however, impracticable with this type of kiln to give individual attention to special loads of lumber.

The compartment type of kiln is more flexible and affords greater control over the drying conditions, permitting less change in temperature, humidity, and circulation in the kiln with variations in the wind and weather. It is better adapted to meet the varying requirements of different kinds of material and is most useful where exact and careful drying is required, as in the handling of refractory woods.

## Improvement Noted in Hardwood Lumber Business.

Hardwood lumber manufacturers and dealers expect a big revival in the industry in the near future. It is felt that the deflation has been stopped and that prices will tend to rise in the future. Excessive transportation charges, however, are hindering the rapid development of new business. High rates on logs have halted production, and the present stock of hardwood lumber will have to suffice for whatever demand may develop. Furniture manufacture stocks are very low and are being bought from hand to mouth. However, many manufacturers have booked orders sufficient to keep in operation and this will force them to come into the market for stocks. There is evidence of activity in the use of hardwoods in the building industry. Heavy sales of low grade lumber have been reported recently. Hardwood exporters report increasing activities in the overseas business and many orders have been received from abroad. It is believed that resumption of trade with Germany will increase the hardwood export business.

## Laboratory Finds Lumber Value of Pine Trees Not Affected by Turpentine

The operation of turpentine pine trees does not lower the strength or resin content of the wood, according to information obtained by the Forest Products Laboratory at Madison, Wisconsin. The crude turpentine, or oleoresin, is not drained from a store in the tree, but is manufactured under the stimulus of the wound by living cells in the sapwood immediately adjacent to the cut on the trunk. No turpentine is produced by the heartwood because all of its cells are dead. The heartwood may be saturated in places with pitch but this does not readily flow out as does the resin freshly formed in the sapwood. The major part of the tree is not appreciably affected, and the loss due to death of trees or to a reduction or degrading of lumber is very small when the proper method of turpentine is followed; this loss is more than offset by the additional revenue obtained through turpentine. The greater part of the wood that is chipped away would not have become finished lumber, but would have gone into slabs and edgings at the sawmill. With proper treatment, the turpentine faces remain healthy, and the wood underneath does not become saturated with resin to any great extent.

## Notes on Good Roads Construction

The Commissioners of the Southern Crawford County Road Improvement District, Van Buren, Ark., have authorized a \$150,000 bond issue for the construction of approximately 90 miles of graded dirt roads, with culverts and steel bridges.

A \$216,000 bond issue for road construction in Floyd County, Ga., has been sold to J. H. Hilsman & Co. of Atlanta, Ga.

The Commissioners of Lenoir County, N. C., have sold the final instalment of \$700,000 of the \$2,000,000 bond issue for road construction to A. B. Leach & Co. of New York. The expenditure of these funds will complete a modern system of hard-surfaced highways in Lenoir County.

A \$1,000,000 bond issue has been voted by Palo Pinto County, Texas, for road construction, including the county's section of the Bankhead Highway.

A modern system of highways will be constructed in Hertford County, N. C., as the result of a \$500,000 bond issue just authorized by the county.



## RAILROADS

### Building Up Arkansas Line for Through Trains.

Cotter, Ark., Sept. 1.—[Special]—An army of workmen, three work trains, two big steam shovels, a train of tractors with dump cart trailers, and approximately one hundred big mule teams are filling the Georges Creek bridge, 20 miles north of this place, on the White River Division of the Missouri Pacific Railway. List & Gifford, Kansas City, Mo., are the contractors. This is one of the largest if not the largest of railroad improvement contracts ever let in North Arkansas.

The bridge is 2159 feet long with an average height of 50 feet. It was constructed when the road was built in 1905, contains 1,200,000 feet of timber, and has been very expensive to maintain.

The White River Division runs through the Ozark Mountains, connecting the plains with the Delta, and when completed had more high bridges probably, than any other division in the Middle West or South. The filling of the Georges Creek bridge marks the winding up of a bridge filling program that has been in effect for the last four years, 30 high wooden structures having been filled in that period.

The present contract involves the moving of 300,000 feet of dirt, which is being moved at the rate of 3000 feet a day. When the big fill is completed about January 1 it will be 170 feet wide at the base and 70 feet wide at the top.

Besides filling the high bridges heavy rails have been laid on a considerable portion of the division between Cotter and Newport, replacing light rails put down when the road was constructed. The north end already has heavy rails.

It is generally supposed that when improvements are completed much north and south through passenger and freight traffic will be moved over this division.

### Texas State Railroad Leased.

The State of Texas has executed a contract with the Texas & New Orleans Railroad Co. of the Southern Pacific System for the lease of the Texas State Railroad, 32½ miles long from Rusk to Palestine, Tex., for five years. A report from Austin, the state capital, says that the state is to receive one-half of any profits resulting from operation of the line, but if there are losses the lessee is to sustain all of them. Besides, the lessee must maintain the road without cost to the state. The line connects at Rusk with the Texas & New Orleans Railroad and the St. Louis Southwestern Railway; at Palestine it connects with the International & Great Northern Railroad.

### Cut in Iron and Steel Export Freight Rates.

Railroads east of the Mississippi River have been authorized by the Interstate Commerce Commission to establish export rates on pig iron and iron and steel products from 20 to 25 per cent lower than the old rates which were the same for both domestic and export traffic. The cut was authorized, it is said, on the request of iron and steel industries to enable them to meet competition abroad.

### Approval Denied.

A report from Washington says that the proposition of the Gulf Ports Terminal Railroad Company to build an extension from a point in Baldwin County, Ala., to Mobile, has been denied by the Interstate Commerce Commission upon the ground that it was not necessary for the public to have such a line.

### Baltimore & Ohio Net Earnings Increase.

While the statement of the Baltimore & Ohio Railroad Co. for July shows a decline of something more than two and one half million dollars in gross operating revenues as compared with July of last year, it shows an increase in net revenue of more than \$7,800,000, for operating expenses were reduced for the month more than \$10,400,000. The detailed figures are: Railroad operating revenues, \$16,537,773; decrease as compared with July of 1920, \$2,534,649; railway operating expenses, \$13,604,457; decrease, \$10,416,750; net revenue from railway operations, \$2,933,316; increase, \$7,882,101; net railway operating income after deducting tax accruals, equipment rents, etc., \$2,026,781; increase, \$7,825,871. (It is noted that the operating expenses for July 1920 included the estimated back pay account of the Labor award of \$6,500,000.)

The statement also presents the aggregate results for seven months' operation January to July, 1921, inclusive, as follows: Railway operating revenues, \$112,768,724; decrease as compared with the corresponding period of last year, \$6,090,420; railway operating expenses, \$97,037,238; decrease, \$22,700,684; net revenue from railway operations, \$15,731,486; increase, \$16,610,264; net railway operating income, \$9,657,246; increase, \$15,071,809.

### Another International Railroad Bridge Proposed.

Plans to build a bridge across the Rio Grande between Del Rio, Tex., and Las Vacas, Mexico, are being considered by the Kansas City, Mexico & Orient Railway and the National Railways of Mexico. The latter is building an extension from Allende northward to Las Vacas and the Kansas City, Mexico & Orient Railway is to build from San Angelo to Del Rio, having graded a roadbed some time ago for such an extension. A conference was recently held at Del Rio, it is reported, between officers of the two roads concerning the type of bridge to be erected.

### First Train Run.

The Wichita Falls & Southern Railroad has run its first train into the oil town of Breckenridge, Tex., having completed its extension to Jimkurn, making connection with the Wichita Falls, Ranger and Fort Worth Railroad. This it is stated, is the fourth railroad to enter Breckenridge within a little more than a year.

### Equipment.

The Chicago, Rock Island & Pacific Railway is reported in the market for 10 mikado type locomotives and 200 gondola cars.

James A. Baker, receiver of the International & Great Northern Railroad, has been authorized to deliver to the Baldwin Locomotive Works of Philadelphia 24 notes of \$8,601.83 each to pay for 8 locomotives.

Southern Pacific Railway has let a contract to the Southern Dry Dock & Shipbuilding Co., Orange, Tex., to rebuild freight cars, and it is stated that the car works will be operated as an open shop.

### Electrical Equipment.

The New Orleans Railway & Light Co., J. D. O'Keefe, receiver, New Orleans, La., contemplates purchasing equipment to the amount of \$545,500, to take care of a waiting list for electric connections, but the matter has not been definitely decided upon, according to an official letter received by the MANUFACTURERS RECORD, and it will probably not be settled until the negotiations between the municipality and the company looking to the adoption of a reorganization plan are complete.



### Decreased Coal Consumption by Railroads.

During the first six months of this year the railroads in the United States burned more than 17 per cent less coal on passenger and freight trains than they did in the same months of 1920, but all of this was not a result of the decline in traffic; much of it has been due to economy on the part of the railroads and their employees, a movement to save coal having become widespread. From January to June inclusive this year freight and passenger trains used more than 50,000,000 tons of coal, the freight service accounting for 34,477,952 tons of this consumption. Last year in the same period the total coal consumption passenger and freight was something more than 60,500,000 tons.

### Automobile Road to Succeed Mountain Line.

A road for automobiles to the summit of Mount Mitchell is proposed by the Mount Mitchell Development Co., the incorporation of which with \$100,000 paid in capital is reported from Asheville, N. C. This company is to take over the right of way of the logging railroad from Black Mountain station on the Southern Railway to the summit, Perley & Crockett, lumbermen, having completed their operations there. Several years ago the firm operated a small passenger car to accommodate tourists who wanted to ascend the highest peak east of the Rocky Mountains, but the exigencies of the war compelled them to cease carrying passengers. The lumber road is about 22 miles long.

### Many Freight Cars Need Repairs.

More than 200,000 freight cars could be added to the equipment of our railroads if cars needing repairs were immediately put through the shops and rehabilitated. The car service division of the American Railway Association says that on August 15 there were 215,256 freight cars requiring repairs. In addition to these there were 284,338 freight cars in good order, but not in use, making an aggregate of 499,594 cars temporarily out of service, this being 13,446 less than the total idle on August 8.

The total car shortage reported from various points was only 2,125 or 1,239 less.

### Increasing Freight Shipments.

The American Railway Association reports for the week ended August 20 an increase of 7,471 in the number of cars loaded with revenue freight as compared with the preceding week, the total being 816,436 cars. The principal increase was in loading of merchandise and miscellaneous freight, including manufactured products, and there was also a substantial increase in shipments of livestock.

### \$5,500,000 to the Atlantic Coast Line.

The United States Railroad Administration has effected a final settlement with the Atlantic Coast Lines, paying the railroad company the sum of \$5,500,000.

### Big Drainage Project Will Be Rushed to Completion.

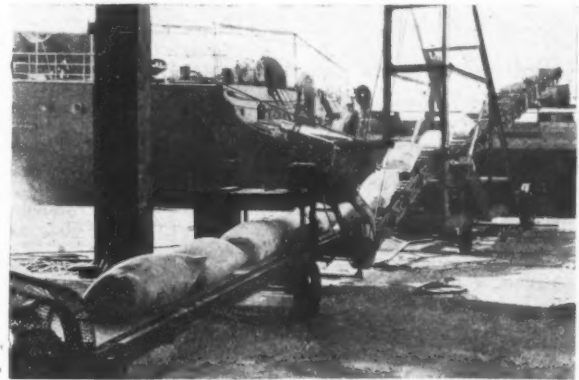
West Palm Beach, Fla., Sept. 2—[Special.]—Sale of the remainder of bonds of the Lake Worth Drainage District insures completion of the reclamation in Palm Beach County of more than 130,000 acres of land suitable to general farming and production of citrus fruits, pine-apples, etc. The \$750,000 now available will be ample to finish the work which is now about 75 per cent complete. A total of about \$2,500,000 has been invested. The cost of the construction work is about \$21 an acre.

## MECHANICAL

### Electric Ship Loading Unit.

A new portable ship-loading unit for bag materials promises to increase shipments of milled flour to foreign parts, and is arousing interest among American millers. Under present conditions, shipments are made in the form of grain for milling in other countries.

A test of this new loader was recently made at the army base in Norfolk, Va. The results, it is stated, indicated that the cost of loading flour from the dock to the hold of the



THE SHIP LOADER IN OPERATION.

vessel will be reduced from \$1.25 per ton to 85c. per ton, while breakages and spoilages will be practically eliminated.

The new loader consists of an electrically driven conveyor which can be moved anywhere about the dock under its own power and raised to practically any height required by different ships. It is fed by conveyors and discharges into the ship's hold through automatic chutes. Thus the whole loading operation is made as near automatic as possible, and only a few operators are necessary.

The loader is also expected to effect great savings by cutting down the time a vessel must remain in dock. Ordinary bag flour is easily handled at the rate of 70 to 100 tons per hour, and by speeding up the work, as high as 200 tons per hour have been handled. The savings made have caused dock boards in other American ports to investigate it.

Officials of the Lamson Company of Boston, who made this installation, anticipate that every port through which flour is shipped will soon be equipped with at least one of these new mechanical loading units.

### Will Launch Fourteenth Ship at Mobile Yard

Mobile, Ala., Sept. 2—[Special.]—The 10,000 ton steel steamer Chattanooga City will be launched shortly by the Chickasaw Ship Building and Car Co., marking the completion of 14 all-steel ships built for the Isthmian Steamship Company. The erection of the yards began about 4 years ago and necessitated converting a vast marsh land into a thriving community of several thousand people. In addition to the ships four barges for carrying oil were constructed.

Revival of the guayule rubber industry in the Torreon district of Mexico is expected to take place within the next few months. It is stated that preparations are now being made for reopening several of the crude rubber factories that have been shut down in recent years.



# Construction Department

## EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news values are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

## DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## Bridges, Culverts and Viaducts.

Ala., Irondale—Jefferson County will construct reinforced concrete bridge on Bankhead highway; double 25-ft. reinforced concrete girder; bids until Sept. 30; C. J. Rogers, County Highway Engr., Birmingham, Ala. (See Machinery Wanted—Bridge Construction.)

Fla., Valparaiso—City will erect 734-ft., 50-span, pile bent bridge over Sunset Bay; bids until Sept. 15; A. P. Kastler, Sr. Clk. (See Machinery Wanted—Bridge Construction.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will complete Philadelphia road bridge and approaches over Herring Run; bids until Sept. 14; A. E. Christliff, Highways Engr. (See Machinery Wanted—Bridge Construction.)

Mo., Carrollton—Carroll County will erect 24-ft. beam, 16-ft. beam and 40-ft. steel truss bridge; bids until Sept. 6; D. W. Frush, Highway Engr. (See Machinery Wanted—Bridge Construction.)

Mo., Memphis—State Highway Dept., Jefferson City, Mo., will construct 20-ft. reinforced concrete slab span bridge on State road from Memphis eastward and westward; 2 reinforced concrete abutments; cost \$4,143.40; State Aid Project 20.51, Scotland County; bids until Sept. 10; M. J. Hanick, Div. Engr. Howe Bldg., Macon, Mo. (See Machinery Wanted—Bridge Construction.)

N. C., Dobson—Surry County let contract to Mullican & Co., at about \$100,000 to build steel bridge across Big Creek and to construct State Highway from Westfield. (See Road and Street Construction.)

N. C., Marion—North Carolina State Highway Comsn, Raleigh, N. C. will construct bridges; McDowell County, Projects 571 and 572; low bidder for Project No. 571, was Prayton-Howton-Wood Construction Co., Albany, Ga., at \$84,300; Project No. 572 was W. T. Taylor Construction Co., Wilsonville, Ala., at \$22,200.

N. C., Rutherfordton—North Carolina State Highway Comsn, Raleigh, N. C. let contract to Geer & Wilson, Rutherfordton, at \$7,700 to build bridges in Rutherford County.

Okla., Bartlesville—Washington County will build reinforced concrete bridge, 20-ft. span between Section 1-27-12 and 36-28-12 and reinforced concrete bridge of 20-ft. span between Sections 7 and 18-27-13 bids until Sept. 6; A. E. Hepner, Chrmn., County Comms.

Okla., Pawhuska—Osage County let contracts for 3 bridges totaling \$33,000 as follows: Hominy Creek bridge, \$12,211; Rock Creek bridge, \$5,260 and Drum Creek bridge, \$4,261. Address County Comms. (Lately noted.)

Tenn., Jackson—Illinois Central R. R.

Co., F. L. Thompson, Ch. Engr., Chicago, Ill., will construct concrete archway supported by concrete pillars on either side of Highland Ave. to supplant wooden, brick and steel trestle; cost \$50,000.

Tenn., Watertown—City let contract to Luten Bridge Co., Knoxville, Tenn., at \$8,500 to build concrete arches across Round Lick Creek. (Lately noted.)

Tex., Comanche—City, J. R. Eanes, Mayor will grade, gravel and construct concrete culverts; voted \$20,000 bonds. (Lately noted to vote.)

Tex., Corpus Christi—Nueces County let contract to Austin Bros. Bridge Co., Dallas, Tex., at \$5,500 to build 216-ft. bridge over Petronila Creek.

Tex., Madisonville—Madison County will construct 988 lin. ft. creosoted timber bridges; 150,000 ft. lumber; 6,500 lin. ft. piling; bids until Sept. 12; S. C. McCarthy, County Engr. (See Machinery Wanted—Bridge Construction.)

W. Va., Huntington—City will build truss or piling bridge across Four Pole Creek; 703-ft.; 71,720 B. M. girders, caps, posts, etc.; bids until Sept. 13; Mat Miser, Commr. Streets and Sewers, (See Machinery Wanted—Bridge Construction.)

## Canning and Packing Plants.

Fla., Eustis—Commerce Fruit Co., organized with Jno. Lezas, Prest.; T. Orfanedes, V-P.; will erect 86x56 ft. fireproof building; install \$3,000 machinery; daily capacity 2 cars citrus fruit. (Lately noted Jno. Lezas and T. Orfanedes will erect packing house.)

Fla., Jacksonville—Chamber of Commerce, B. R. Kessler, Secy., interested in establishing crab cannery.

Fla., Vero—Vero Indian River Producers Assn. W. E. Riggs, Secy.-Treas. let contract to Brodgen, Ricketts & Howarth Co., at \$25,000 to erect 3-story 70x60 ft. fireproof packing house; purchased \$11,000 machinery; pack citrus fruit; daily output 2 cars. (Lately noted.)

Ga., Madison—8th Dist. Agricultural & Mechanical School, B. F. Gay, Prest., plans erecting cannery with daily capacity of 4,000 to 5,000 cans.

Md., Baltimore—Wm. B. McCaddin & Co., 26 Market Place, capital \$15,000, inceptd. with Wm. B. McCaddin, Prest.-Mgr.; M. T. McCaddin, Secy.; Harry Lehman, Treas.; leased 3-story 80x25 ft. ordinary construction building; daily output 500-gal. shucked oysters.

## Clayworking Plants.

Fla., Orlando—Pottery—Orlando Potteries, capital \$25,000, inceptd. with M. J. Daetwyler, Prest.; G. D. Krebs, Secy.-Treas.

Ga., Columbus—Sewer Pipe—Columbus, Sewer Pipe Co., Judson C. Buchanan, Mgr., Glade Road, is reported to rebuild plant burned at loss of \$75,000.

Ky., Louisville—Bricks.—Progress Pressed Brick Co., A. P. Hildebrand, Prest., will erect addition; increase daily capacity from 25,000 to 45,000 bricks. (Lately noted.)

Tenn., Bristol—Bricks—Southern Brick Co., capital \$90,000, organized by Chas. T. Kilgore. (Lately noted.)

Va., Danville—Bricks.—Watson-Fitzgerald Co., plans increasing capital to \$150,000.

## Coal Mines and Coke Ovens.

Ala., Payne Bend—Daniel Duffee Coal Co., 1801 Jefferson County Bank Bldg., Birmingham, Ala. (Lately noted inceptd., capital \$10,000) organized with Robt. L. Daniel, Prest.; C. G. Duffee, Secy.-Treas.; develop 160 acres coal land; present daily output 50 tons.

Md., Baltimore—Marva Coal Co., 125 E. Fayette St., capital \$50,000, inceptd. by James P. Wilcox, Frederick H. Henninghausen, and Charles F. Stein, Jr.

Va., Lee County—Ellaure Coal & Coke Co. inceptd. with James L. Nixon, Prest.; Chas. J. Kesner, Secy.-Treas., both Kingsport, Tenn. have taken over coal interest in Lee County, will improve, develop mines of private individuals, construct 2½ mi. railroad; contemplate \$30,000 bond issue.

W. Va., Arnettsville—P V & K Coal Co., R. H. Robinson, Secy.-Treas. and Mgr., 242 Main St., Monongahela, Pa., will develop 800 acres, daily output 1500 tons; install electrical equipment, shaft operation; bids not before spring of 1922.

W. Va., Brooke and Ohio Counties.—Windsor Coal Co. Wheeling, W. Va. purchased about 290 acres coal land; will develop.

W. Va., Flemington—Arthur Q. Davis, Uniontown, W. Va., interested in organizing company to develop 150 acres coal land.

## Cotton Compresses and Gins.

Tex., Afton—Afton Farmers' Union Gin, capital \$20,000, inceptd. by E. D. Chambers and associates.

## Drainage Systems.

Ala., Mobile—Mobile County Comms. contemplate establishing drainage system; to reclaim about 3000 acres; Guy A. Hart, U. S. Drainage Engr.

Fla., West Palm Beach—Lake Worth Drainage Dist., C. H. Ellis, Secy., will complete drainage system, reclaiming 131,347 acres land; sold \$750,000 bonds.

Ky., Owensboro—Davies County Drainage Dist., R. H. Ford, Comms., 220½ Frederica St. will construct ditch, 82,224 cu. yds. earth excavation, clearing 14½ acres of right of way; erect 20 and 22 ft. span wooden bridge bids until Sept. 1. (See Machinery Wanted—Ditch Construction.)

Miss., Marks—Little Opossum Bayou Drainage Dist. Comms., J. W. Mack, Secy., construct canal containing 296,000 cu. yds.; build dam across Little Opossum Bayou near Longstreet, containing 1,000 cu. yds. bids until



Sept. 10; W. R. Wallis, Dist. Engr. (See Machinery Wanted—Canal.)

Miss., Silver City—Atchafalaya Drainage & Levee Dist. R. L. Campbell, Secy. will construct enlarge levees in district; approximately 400,000 yds.; bids until Sept. 13; Lamar Fontaine, Jr., Engr., Yazoo City, Miss. (See Machinery Wanted—Levee.)

Mo., Benton—Scott County Commrs., let contracts to Callahan Construction Co., Great Southern Life Bldg., Dallas, Tex. following contracts; Drainage Dist. No. 12, main ditch and 5 laterals, 791,000 yds. earth excavation, 400 yds. rock excavation, earth dam 111 yds., \$135,000; reclaiming 12,000 acres; and in Drainage Dist. No. 14, 102,560 cu. yds. earth excavation; \$13,332.80, reclaiming 5,000 acres. (Bids lately noted.)

### Electric Plants.

Ark., Lepanto—Town, R. C. Finn, Recorder, will install electric light, sewer and water systems; will issue \$100,000 bonds.

Fla., Gainesville—City may let contract to Robert & Co., Atlanta, Ga., to improve electric light and water plant; issued \$30,000 bonds. Address The Mayor.

Ky., Carrollton—City will improve light and water plant; vote Nov. 8 on \$18,000 bonds; J. E. Gullion, Mayor.

La., Abbeville—City will construct light and water plant; voted \$125,000 bonds. Address The Mayor. (Lately noted to vote.)

La., Alexandria—City, Mayor Folsy, will improve power plant; let contract to General Electric Co., Schenectady, N. Y., at \$41,500, for turbine, and to Wheeler Condenser & Engineering Co., Carteret, N. J., at \$8,225, for condenser; Jno. Laney, Supt. Electric Lights.

La., New Orleans—W. E. Wren, reorganizing company to erect \$1,000,000 plant to generate electricity.

La., New Orleans—Harry K. Johnson, 1003 Hibernia Bldg., will expend \$200,000 for 1st installation of power plant; develop 900-H. P. (Lately noted applied for franchise.)

La., Plain Dealing—Plain Dealing Light & Power Co., M. S. Bollinger, Prest., will erect 64x30 ft. corrugated iron building; install 15 and 25 H. P. oil engines; 15 and 30 Kw. D. C. 220 generators and 5—10—H. P. motors. (See Machinery Wanted—Generators; Motors.)

Mo., Kansas City—City, plans constructing lighting system on 31st St., and on Gladstone Blvd. Address The Mayor.

Mo., St. Charles—City, Otto Boekemeier, Clk., will install electric light plant and distribution system, costing \$200,000; Benham & Mullergren, Consult. Engrs., Firestone Bldg., Kansas City, Mo.

N. C., Columbia—City let contract to Tucker & Laxton, Charlotte, N. C., to construct electric power line.

N. C., Kinston—City will expend \$300,000 to improve electric plant, including construction of 200-ft. smoke stack; contemplates installing light on top. Address The Mayor.

N. C., Raleigh—North State Power Co., capital \$350,000, inceptd. by L. H. Crouch, Raleigh; J. B. Johnson, Cardenas, N. C.; A. J. Blalock, Willow Spring, N. C.

Okla., Bartlesville—City, W. J. Ross, City Commr., will improve lighting system.

Okla., Crescent—City will install electric light and water-works; plans voting on \$60,000 bonds. Address The Mayor. (Lately noted.)

Okla., Hartshorne—City contemplates installing lighting system. Address The Mayor.

Okla., Pryor—City will construct 8-mi.

transmission line at Pryor Creek; V. V. Long & Co., Engrs., 1300 Col'ord Bldg., Oklahoma City, inviting bids.

Tex., Harlingen—City issued \$32,000 electric light bonds. Address The Mayor.

Tex., Texline—City will construct electric light plant and water system; voted \$55,000 bonds; J. H. Bender, Engr., Clayton, N. M. Address The Mayor.

Tex., Timpson—City will vote Sept. 6 on light and power bonds. Address The Mayor.

Tex., Whitney—City will issue \$15,000 electric light system bonds. Address The Mayor. (Previously noted.)

Va., Danville—City will expend \$10,000 to install lighting system. Address The Mayor.

W. Va., Logan—Kentucky & West Virginia Power Co., N. M. Argabrite, Gen. Mgr., 30 Church St., New York, let contract to Foundation Co., New York, at \$1,800,000, to improve plant; extend turbine room; install out door switching station and underfeed stokers; erect transformer repair house; A. J. Darrah, Dist. Mgr.; E. A. Turner, Supt. of Construction; both Logan; Francis R. Weller, Const. Engr., 408 Hibbs Bldg., Washington, D. C.

Va., Yorktown—Bureau of Yards and Docks, Navy Dept., Washington, D. C., will construct power house, reservoir and dispensary, etc.; (Spec. 4498); bids until Sept. 14; M. A. Long Co., Engr., 1523 Munsey Bldg., Baltimore, Md. Lately noted plans constructing power house, etc. (See Machinery Wanted—Electric Plant.)

Va., Yorktown—Bureau of Yards and Docks, Navy Dept., Washington, D. C., plans purchasing and installing power plant equipment; (Spec. No. 4508).

### Fertilizer Factories.

Fla., Fernandina—Nassau Fertilizer & Oil Co., capital \$500,000, inceptd. with J. B. Guess, Jr., Prest.; W. H. Faust, Secy.-Treas.; both Denmark, S. C.; A. L. Coleman, V-P., Silver Street, S. C.

### Flour, Feed and Meal Mills.

N. C., Westfield—Robt. T. Joyce, Greensboro, N. C., purchased site; will erect roller mill; hydro-electrically operated. (See Hydro-Electric Plants.)

Tenn., Bristol—Bristol Milling & Mfg. Co., capital \$50,000, inceptd. with S. J. Vance, Prest.; J. B. Lyon, V-P.; H. C. Fugate, Secy.-Treas.

### Foundry and Machine Plants.

Ala., Birmingham—Grates—Kleyensteuber—White Foundry Co., Box 630, H. M. S. Kleyensteuber, Prest. increased capital from \$10,000 to \$20,000; mfrs. White shaker grate, general foundry, metal and wood pattern work. (Supersedes recent item.)

Mo., St. Louis—Piston Rings—Twentieth Century Ring Co. have leased building, will remodel for mfr. of piston rings.

Mo., St. Louis—Radiators—Williams Radiator Co. leased portion of building, about 20,000 sq. ft. floor space for laboratory work in connection with mfr. of radiators.

N. C., Burlington—Machine Shop—Midway Foundry Co., capital \$25,000, inceptd. with W. N. Thompson, Prest.; S. C. Stanley, Secy.; J. G. King, Mgr. will erect brick plant.

### Gas and Oil Enterprises.

Ark., Deane—Steinke Oil & Gas Co., capital \$75,000, inceptd. by H. K. Steinke and Jas. W. Smith.

Ga., Augusta—Richmond Gas & Oil Co., capital \$50,000, inceptd. by W. S. Brand, J. H. Flythe.

La., Haynesville—Haynesville Star Oil Co., organized with J. W. Adcock, Prest.; E. H. Adcock, V-P.; both Shreveport; B. C. Collier, Secy.-Treas.; Haynesville.

La., New Orleans—J. Y. Sanders interested in formation of syndicate to develop Terrebonne gas field with view of piping natural gas to New Orleans; acquired Atchafalaya Basin Oil & Development Co., embracing about 25,000 acres.

Miss., Greenville—Rainbow Oil Co., organized with \$500,000 capital; E. L. Wortham, El Dorado, Ark., interested; will erect refinery, and construct pipe line to El Dorado.

Okla., Blackwell—Pipe Line—Cozart Gas Co., will lay 19 mi. 10-in. pipe line from Deer Creek field to city.

Okla., Enid—Garfield Petroleum Co., capital \$100,000, inceptd. by Jno. E. Sharp and Burton E. Moore.

Okla., Garber—Harman Oil & Gas Co., capital \$10,000, inceptd. by Geo. Harman, Garber; Will C. Allen, Enid, Okla.

Okla., Tulsa—Pipe Line—Oklahoma Natural Gas Co. will extend trunk lines; lay about 20-mi. 12-in. pipe line from Tulsa-Muskogee Dist. to Oklahoma City Dist.; A. W. Leonard, in charge of construction.

S. C., Greenwood—Greenwood Petroleum Co., capital \$20,000, inceptd. with W. C. Owen, Prest.; W. O. Self, Secy.-Treas.

Tex., Amarillo—Plains Lubricating Co., capital \$5,000, organized with L. S. Lahm, Prest.; R. E. Scales, V-P.; M. E. Lahm, Secy.; has building; will install boiler; daily output 56 drums lubricating oil.

Tex., Houston—Pierce Junction Oil Co., capital \$600,000, inceptd. by R. E. Brooks and J. W. Link.

Tex., Minerva—Texas Imperial Co., Fort Worth, Tex., plans erection 100-bbl. daily capacity refinery; contemplates constructing 2-in. pipe line with laterals.

Tex., Somerset—Refinery—Eggleston Oil Corp. will expend \$50,000 to construct refinery, with 800 to 1,000-bbls. crude oil daily capacity.

W. Va., Buckhannon—McLaughlin Oil & Gas Co., capital \$25,000, Chas. W. McLaughlin, Buckhannon; Wm. McDade, Shelbyville, W. Va.

W. Va., Huntington—Earston Oil & Gas Co., capital \$100,000, inceptd. by C. M. Gohon and G. D. Miller.

W. Va., Wheeling—Carman Oil Co., capital \$10,000, inceptd. by D. A. Burt and J. F. Amick.

### Hydro-Electric Plants

N. C., Westfield—Robt. T. Joyce, Greensboro, N. C., will install electric generator at Asbury Mill; transmit 100,000 H. P. to Westfield. (See Flour, Feed & Meal Mills.)

Va., Lynchburg—City will build and equip hydro-electric light power plant; erect powerhouse costing from \$150,000 to \$362,000. Address Mayor Harper.

### Ice and Cold-Storage Plants.

Ala., Carbon Hill—Artesian Ice Co. (lately noted inceptd. capital \$15,000), organized with Jas. Nichol, Jr., Prest.; J. M. Townley, V. P.; I. E. Cooper, Secy.-Treas. and Mgr., will erect 42x49-ft. building, \$2500; install \$13,000 ice mch.; daily output 10 tons; R. G. Whistler, Const. Engr., Omaha, Neb.

Fla., Jacksonville—Certain-Thyson Milk Co., Bernard Thyson, Prest. contemplates installing 30 ton capacity ice machine. (See Machinery Wanted—Ice Machine.)



Miss., Jackson—Capital Ice Co., P. P. Vail, Mgr. has buildings; will install air compressor direct connected to electric generator and absorption ice mch.; daily capacity 100 tons; Chas. A. Zilker, Const. Engr., 1123 Julia St., New Orleans, La.

Va., Richmond—Blalock Fruit & Produce Co., 1322 E. Cary St. contemplates installing small refrigerating plant. (See Machinery Wanted—Refrigerating Plant.)

### Land Development.

Ala., Birmingham—Kiwanis Club, committee will co-operate with City to develop park system. Address The Mayor.

Ark., El Dorado—Circle "7" Ranch Co., capital \$96,000, inceptd. by C. E. and Luke Thompson.

Fla., Clearwater—City, J. R. Thomas, Clk., will purchase Lake property; develop for park; voted \$45,000 bonds. (Lately noted.) Repeat

Fla., Winter Haven—Everbear Nurseries Co., capital \$500,000, inceptd. with A. H. DeVane, Pres.; Juo. A. Snively, V-P.; W. H. Lewis, Secy.-Treas.

Ga., Coffee County—Georgia and Florida Land & Development Co., W. V. Griffin, New York, acquired 12,000 acre site; will develop in small farms; erect houses, etc.

Md., Baltimore—Frederick Bredemeyer, New York, purchased 81-acre site on Liberty Heights Ave.; will develop portion.

Tex., Galveston—F. E. Bishop, San Antonio interested in land development and colonization plan.

Va., Danville—J. C. Womack and K. C. Arey leased Park Springs; will expend \$50,000 to improve and develop for summer camp and amusement park. Lumber Manufacturing.

### Lumber Manufacturing.

Ark., Morrilton—Brown-Moore Lumber Co., capital \$75,000, inceptd. with L. E. Brown, Pres.; T. J. Moore, Treas. and Gen. Mgr.; purchased established mill.

Fla., Pasco County—Cummer Lumber Co., Jacksonville, Fla., contemplates erecting saw mill; reported to remove crate mill to Lacoochee within next 2 yrs. (Lately incorrectly noted inceptd.)

Ga., Milltown—Lanier County Lumber Co., J. C. Brewer, Pres. (lately noted to establish mill) will erect 40x200-ft. mill; install planer, trimmer, combination edger, etc.; daily capacity 50,000 ft. yellow pine and cypress lumber; J. L. Parish, Archt. (See Machinery Wanted—Saw Mill Equipment.)

La., Floyd—W. C. Buchanan purchased 25,000 acres timber tract, will establish saw-mill and lumber mfg. plant.

Tex., Thicket—East Texas Lumber Co., Chas. Sigler, Treas.-Mgr., Woodville, Tex., plans to establish small mill.

### Metal Working Plants.

### Metal-Working Plants.

Ky., Ashland—Wire Screen Cloth—Norton Iron Works, T. M. Adams, Mgr., let contract to erect 150x200-ft. 2-story building, fireproof, reinforced concrete and steel; install wire cloth looms, purchased; mfr. wire screen cloth.

Ky., Louisville—Semaphore—Safety Semaphore Co., capital \$20,000, inceptd. by J. Henry Brady, Wilson H. Hinton and R. E. Davis.

Mo., St. Louis—Aluminum Heels—Cinderella Heel Corp., Robert Tabor, Gen. Mgr., 107 S. 7th. St. leased building, mfr. unbreakable aluminum heels.

Mo., St. Louis—Steam Kettle.—Frank B. Paxhia has leased building, will mfr. a patent steam kettle.

Tenn., Chattanooga—Grain Softener—Tennessee Grain Softener Co. inceptd. by J. L. Hooper, Charleston, Tenn.; L. E. Glass and B. B. Newman, both Chattanooga; will erect \$25,000 plant to mfr. grain softeners.

Tenn., Knoxville—Aluminum—General Aluminum Co., capital \$60,000, inceptd. by E. H. Hickman, F. G. Arnett and H. B. Lindsay.

Tex., Beaumont—Motor Silencer—Molar-Motor Silencer Co. inceptd. by C. H. Larson, W. T. Moore and M. H. Grager.

Tex., Dallas—Screen—Acme Screen Co., capital \$20,000, inceptd. by C. A. Agee, E. S. Turner and W. E. Nelson.

W. Va., Huntington—Safety Appliance—Safety Appliance Co., inceptd. by W. K. Cowden and H. C. Duncan, Jr., both Huntington; Walter Procter, Yamacraw, Ky.

### Mining.

Ky., Smithfield—Flourspar—Ohio-Kentucky Flourspar & Lead Co., organized with F. B. Moody, Gen. Mgr., leased North American properties with daily capacity 150 tons; will install mch. to double output. (Lately noted inceptd., capital \$11,000,000.)

Tenn., Memphis—Blue Diamond Mining Co., capital \$50,000, inceptd. by R. A. Bridges, J. B. Rozler, Sr. and H. S. Buchanan.

Tex., Corsicana—Sand—Elm Creek Petroleum Co. will develop oil sand in connection with drilling enterprise.

Tex., Houston—Sulphur—Texas Co., Amos L. Beaty, Pres., plans to develop sulphur properties, comprising 28,000 acres.

Tex., Odessa—Potash—John M. Gist plans to develop potash deposits.

### Miscellaneous Construction.

Fla., St. Petersburg—Pier—Chamber of Commerce interested in construction of 2000 ft. pier with 2100 ft. causeway for docking deep water boats.

Ga., Augusta—Wharf—Finance Committee of City Council granted funds to repair boat line wharf and install electric elevator; estimated cost between \$6,000 to \$7,000; Nesbit Wingfield, L. S. Arrington and others interested.

La., New Orleans—Levee—Mississippi River Comsn., 4th Dist., let contract to J. W. Noble, Fayette, Miss., to construct Palmyra levee.

Md., Baltimore—Heating Plant—City, Wm. F. Broening, Mayor, will install heating plant in City Jail; bids opened; H. G. Per-ring, Chief Engr.; Richard Gwinn, Register. (See Machinery Wanted—Heating Plant.)

Md., Baltimore—Elevator—Western Maryland Ry. Co., H. A. Lane, Chief Engr., let contract to James Stewart & Co., Chicago, Ill., to erect at Port Covington 189-ft. elevator, 44 ft. wide and 62 ft. long; plan includes annex No. 3, 118 ft. high, 192 ft. long and 85.9 ft. wide, containing 36 bins for grain; annex No. 4, 128.5 ft. long, 64.8 ft. wide, 118 ft. high, containing 18 bins; extend gallery bridge to height of 74.9 ft.; extension of docks and foundation work let to Andrew Miller, 3122 Foster Ave.; estimated cost of increased facilities about \$350,000.

Miss., Biloxi—Breakwater—U. S. Government let contract to Harry James to construct breakwater at Lake Borgne light with rock ballast.

Mo., Louisiana—Grain Elevator—Louisiana Elevator Co., care of J. W. Rule, reported to construct concrete elevator.

N. C., Lexington—Swimming Pool—H. Luther Leonard contemplates constructing swimming pool.

N. C., Lexington—Swimming Pool.—R. L. Allred reported to construct swimming pool.

N. C., Wilmington—Memorial Fountain—Wm. R. Kenan, Jr., 433 Locust St., Lockport, N. Y. let contract to Presby-Leland Co., 11 E. 47th St., New York to construct memorial fountain; approximate cost \$28,000 to \$30,000; Carrere & Hastings, Archt., Shreve, Lamb & Blake, Associated, 52 Vanderbilt Ave., New York. (Lately noted.)

Tex., Corpus Christi—Breakwater—City will complete breakwater construction in Corpus Christi Bay; List & Gifford, Dallas, Tex., lowest bidder; R. C. Cummins, Const. Engr., Houston, Tex.; C. J. Howard, City Engr. (Bids lately noted.)

Tex., Galveston—Elevator—Southern Pacific Co., H. M. Lull, Chief Engr., Houston, Tex., will rebuild 420 ft. gallery of Sunset elevator extending to end of Pier A equip with 36-in. belt; estimated cost \$21,000; construction by company's forces.

Tex., Fort Worth—Levee—Tarrant County Comms. contemplate establishing levee dist. to construct levee on Trinity river.

### Miscellaneous Enterprises.

Ala., Anniston—Potato Curing—O. M. Alexander, V. P. City Bank and Trust Co. let contract to G. G. Wright to erect 24x48 ft. potato curing plant, capacity 4100 bu.

Ala., Birmingham—Publishing—Alabama Christian Advocate, L. C. Branscomb, Editor, contemplates erecting office building; purchased site.

Fla., Arcadia—Laundry, etc.—Modern Steam Laundry, Inc. by S. R. Barker, George V. Russell and William J. Doyle; establish 50,000 laundry and dry cleaning plant.

Fla., Fort Myers—Aquarium—Capt. Jack DeLysle, Prop. Seminole Sands, has plans to build aquarium, concrete tank construction with plate glass lights.

Fla., Sarasota—Appliances—Sarasota Bee Co., Sarasota Bank Bldg., C. M. Bosworth, Pres.-Mgr. (Lately noted inceptd., capital \$25,000) will install planer, jointer, band, saw, rip, cut off and dado saw, etc. all set up separately; bids some time in Oct. (See Machinery Wanted—Woodworking Machinery.)

Fla., Tampa—Plumbing—Tampa Plumbing Supply Co., capital \$100,000, inceptd. with Ernest Kreher, Pres.; Max Kreher, Secy.-Treas.

Fla., West Palm Beach—Construction—Palm Beach City Construction Co., inceptd. with Thos. S. Potts, Pres.; Fred. G. Schwartz, Secy.

Fla., Winter Park—Fire Equipment, etc.—City contemplates purchasing fire equipment, etc.; votes Sept. 20 on \$25,000 bonds. Address Mayor Kezel.

Fla., Winters Park—Publishing—Florida National Publishing Co., (lately noted inceptd., capital \$100,000) organized with J. H. Wendler, Pres.-Mgr. will erect 30x75-ft. fireproof plant, \$25,000; F. H. Trimble, Archt., Hand Bldg.; install printing presses and linotype machines; bids until Sept. 6. (See Machinery Wanted—Printing Presses, etc.)

Ga., Cedartown—Building Supplies—Hightower Lumber & Supply Co. organized with E. Darden Borders, Pres.; G. S. Borders, Secy.; enlarge and develop building service, handling building supplies. (See Machinery Wanted—Building Supplies.)

Ga., Crawfordville—Potato Curing—H. L. Bowen and J. S. Jackson reported to erect sweet potato curing house.



Md., Baltimore—Distributing—Timber Mfrs. Distributing Co. of Maryland, Fidelity Bldg. inceptd. for general wholesale timber and lumber distributing; Williams & Williams, Fidelity Bldg., Atty's.

Md., Cumberland—Construction—Shawaneese Building Co., 7 Liberty St., capital \$50,000, inceptd. by Jesse A. Fitzpatrick, William J. Morley and Francis S. Deekens, Sr.

Md., Glenburnie Station—Construction.—J. F. Johnson Lumber Co., capital \$50,000, inceptd. by Joshua F., J. Purnell and Mabel V. Johnson.

Okl., Pawhuska — Incinerators — Charles Hawkins, Prest., American Incinerator Mfg. Co. will establish plant.

Okl., Tulsa—Incinerators—City let contract to Nye Odorless Crematory Co., Macon, Ga. at \$25,000 to construct incinerator. (Lately noted.)

S. C., Florence—Poultry and Dairy—M. W. Cartwright, Fort Wayne, Ind. interested in a \$250,000 dairy and poultry development for Pee Dee section of South Carolina; W. W. Long, Director of State Extension Service.

Tenn., Memphis—Laundry—I. D. Block will erect 3 story 75x150-ft. building, to be occupied by laundry company; install \$30,000 mchy.

Tenn., Memphis—Construction—Hollingsworth Construction Co., capital \$10,000, inceptd. by J. R. Whalen, J. E. Hollingsworth and C. W. McDowell.

### Miscellaneous Factories.

Fla., Pasco County—Ink.—Jno. S. Patterson, Hackensack, N. J., will establish plant to mfr. indestructible marking ink.

Fla., Tampa—Cigars—Grommes & Elson, J. B. Grommes, Prest., Chicago, Ill., leased plant; mfr. cigars; Cerillo Fernandez, Local Mgr.

Fla., Tampa—Remedies—Burdette Remedies Co., capital \$50,000, inceptd. with A. B. Burdette, Prest.; C. A. Burdette, V-P.; Leila Chancey, Secy.-Treas.

Fla., Tampa. — Food Products—Pure Food Products Co., capital \$50,000, inceptd. with Geo. A. Lassman, Prest.; Herman Schlesinger, V-P.; Jno. F. Wilson, Secy.-Treas.

Ga., Dalton—Creamery, etc.—Dalton Ice Co., organized with J. J. Copeland, Prest.; T. B. Wright, Mgr., will erect 2-story brick factory building; install machinery; contemplating establishing ice cream factory. (Lately noted T. B. Wright and J. J. Copeland interested in incorporating \$25,000 company to establish creamery.)

La., New Orleans—Ice Cream—Washington Ice Cream Co., Dominick Graffagnino, Prest., acquired site; will erect additional plant.

La., New Orleans—Beverages—Circle "A" Corp. of America, R. S. Lazenby, Prest., Waco, Tex., will establish plant to mfr. carbonated beverages; install refrigerating, carbonating, syrup making, bottle washing and water distilling machinery; daily output 2,000 cases. (See Machinery Wanted—Refrigerator machinery; carbonating machinery; syrup making machinery; bottle washing machinery; water distilling machinery.)

Md., Baltimore—Type Cleaners—Anthony Nutype Co., 743 Culvert Bldg., capital \$25,000, inceptd. by Sam Tour, Saml. V. Anthony and Thos. B. Shriver.

Md., Baltimore—Rubber Goods, etc.—Safety-First Patch Co., 129 Fidelity Bldg., capital \$100,000, inceptd. by Geo. E. Thrall, Hugh T. Aldrich and Harvey R. Baker.

Md., Baltimore—Lard, etc.—Canton Company, Commerce & Water Sts., will erect 4-story

114x72 ft. building, and two 1-story buildings; 58x50 ft. and 48x33 ft. respectively; slag roof; steam heat, etc.; cost \$70,000; construction by owner; Jas. P. Devereaux, Archt., 532 E. North Ave.

Mo., Sedalia—Milk Condensing—Helvetia Milk Condensing Co., W. G. Kaeser, Representative, Helvetia, Ill., contemplates erecting factory with daily output of 30,000 gals. milk.

Mo., St. Louis—Beverages—Circle "A" Corp. of America, R. S. Lazenby, Prest., Waco, Tex., has building; will install refrigerating, carbonating, syrup making, bottle washing and water distilling machinery; mfr. carbonated beverages; daily output 2,000 cases. (See Machinery: Refrigerating Machinery; Carbonating Machinery; Syrup Making Machinery; Bottle Washing Machinery; Water Distilling Machinery.)

Mo., Willow Springs—Creamery, etc.—Willow Springs Creamery Co. will expend \$40,000 to construct creamery and ice cream plant; install 20-ton ice making plant, and machinery to mfr. ice cream.

N. C., Enfield—Tobacco—R. L. Swain Tobacco Co., capital \$750,000, inceptd. by Roger L. Swain and Harry Reagan.

Okl., Henryetta—Glass—Henryetta Glass Mfg. Co., H. L. Chambers, secured 2-acre site; erect plant to mfr. lighting globes, shades, etc. (Lately noted inceptd., capital \$50,000.)

N. C., Greensboro—Stains, etc.—Southern Oil & Chemical Co., is being formed to mfr. shingle stains, disinfectants, oil, etc.; purchased machinery. (See Machinery Wanted—Stains, etc.)

N. C., Tarboro—Bakery—Chamber of Commerce interested in establishing bakery.

S. C., Charleston—Mint Cola—Mint Cola Co., capital \$50,000, inceptd. with H. T. Foster, Prest.; E. F. Mann, Secy.; H. T. Dantzier, Treas.

Tex., Dallas—Beverages—Circle "A" Corp. of America, R. S. Lazenby, Prest., Waco, Tex., has building; will install refrigerating, carbonating, syrup making, bottle washing and water distilling machinery; mfr. carbonated beverages; daily output 2,000 cases. (See Machinery Wanted—Refrigerating Machinery; Carbonating Machinery; Syrup Making Machinery; Bottle Washing Machinery; Water Distilling Machinery.)

Tex., Orange—Milk Products—Milk Products Co., capital \$12,000, inceptd. by W. C. Ross and G. R. Stevenson.

Tex., Waco—Beverages—Circle "A" Corp. of America, R. S. Lazenby, Prest., has building; will install refrigerating, carbonating, syrup making, bottle washing and water distilling machinery; mfr. carbonated beverages; daily output 2,000 cases. (See Machinery Wanted—Refrigerating Machinery; Carbonating Machinery; Syrup Making Machinery; Bottle Washing Machinery; Water Distilling Machinery.)

W. Va., Belle—Alkali—Belle Alkali Co., plans constructing \$50,000 reinforced concrete building; invites bids.

W. Va., Huntington—Bottling—Indian Rock Bottling Co., capital \$25,000, inceptd. by A. B. Emigh, Huntington; C. W. Lovelace, Williamson, W. Va.

### Motor Cars, Garages, Tires, Etc.

Ala., Bessemer—Garage, etc.—Keith, Perkins & Ware Tire Co., capital \$10,000, inceptd. by S. P. Keith, M. S. Ware and C. R. Perkins; purchased established filling station and garage.

Fla., Fernandina—Garage—Fernandina Automobile & Garage Co., capital \$10,000, inceptd.

with T. G. Ozmer, Prest.; Frank D. Upchurch, Secy.-Treas.

Fla., Jacksonville—Garage.—Mangels-Kirby Co. let contract to H. F. McAden to erect 2 story, reinforced brick over concrete; approximate cost \$50,000. (Lately noted to erect plant.)

Fla., St. Cloud—Garage—A. T. Meeker, 10th St. and Florida Ave. let contract to Neville Lee to erect garage addition.

Fla., St. Petersburg—George N. Lippitt will occupy 50x100-ft. garage to be erected by Tom. F. McCall.

Ga., Macon—Filling Station— anfield will erect filling station; has

La., Willowbrook, P. O. Blanchard, —Tires. — F. M. Brown will establish first of chain of shops for vulcanizing and repairing automobile tires. (See Machinery Wanted—Vulcanizing Machines; Rubber; Cement.)

Md., Baltimore—Garage—American Ice Co., 1314 Ridgely St., will erect 2 story, brick garage and repair shop; construction by owner.

Md., Baltimore—Automobiles—Franklin Motor Car Co., W. Knelp, Propr., 1017 N. Eutaw St., let contract to Otto G. Simonson, Maryland Casualty Tower Bldg. to erect 3 story 40x150-ft. fireproof building. (Lately noted.)

Md., Baltimore—Garage—Maryland Construction Co., North Ave. and Oak St., remodel building for garage and service station; estimated cost \$10,000.

Md., Baltimore—Garage—Garage Construction & Investment Co., 1310 W. Lexington St., capital \$20,000, inceptd. by August C. Kirm, Daniel E. Baird, and Charles A. Mattingly.

Md., Baltimore—Service Station—Standard Oil Co., Pier 2, Pratt and Commerce Sts. reported to erect service station, at 2426 Columbia Ave.

Md., Cumberland—Garage—Maryland Garage, 225 N. Mechanic St., capital \$50,000, inceptd. by Frank A. Stein, Anthony Powell and De Sales Glick.

Mo., Jefferson City—Filling Station—L. E. Klatz, St. Louis, Mo. plans to erect filling station.

Mo., Kansas City—Garage—Scott, Barry & Schwald let contract to Frank P. McClure Construction Co. to erect 2 story garage, 80 ft. frontage.

Mo., Kirksville—Motors—Kirksville Motor Co. increased capital to \$75,000.

N. C., Burlington—Garage—Thompson Garage Co., W. N. Thompson, Prest., establish plant to rebuild used automobiles.

Okl., Cushing—Automobiles—Gayley Buick Co., capital \$15,000, inceptd. by W. R. Gayley, S. A. Bryant and F. L. Griffith.

Okl., Tonkawa—Motors—Tonkawa Motor Co., capital \$50,000, inceptd. by D. E. Ryan, Tonkawa; G. E. Dowis and John C. Affholder, both Blackwell, Okla.

Tex., Dallas—Automobile Storage—Palace Auto Storage, capital \$25,000, inceptd. by M. B. Featherstone, J. B. Johnson and O. D. Bumbridge.

Tex., Hearne—Motors—West Motor Co., inceptd. by J. H. West, Tom. Randolph and E. K. Ewing.

Tex., San Antonio—Automobiles—Chaddick Automobile Co., capital \$40,000, inceptd. by C. Chaddick, W. W. Bynum, A. S. Stratton.

Tex., Waco—Motors—Hellmuth-McNutt Motor Co. increased capital from \$15,000 to \$50,000.

Tex., Waco—Garage, etc.—Hopkins & Duffy has under construction 100x125-ft. 2 story brick building; will install equipment to mfr. automobile bodies, wagons, auto tops



and seat covers, painting and general repairing of autos, etc.; J. M. Bush, Contr.; Milton W. Scott, Archt.

W. Va., Clarksburg—Tire Repairs, etc.—Smith-Grant Tire & Repair Shop, reorganized by Fred. A. Smith, George W. and Joseph Grant.

W. Va., Clarksburg—Garage—Hoo-Dent Co. will erect 60x150-ft. garage.

W. Va., Wheeling—Motors—Corby Motor Corp., capital \$150,000, inctpd, by T. D. Gorby, R. H. Nahlke, and A. O. Schiffler.

### Railway Shops, Terminals,

Ark., Stamps—Louisiana & Arkansas Ry. E. F. Salisbury, Ch. Engr. will construct 1 story, brick and reinforced concrete locomotive shop.

Mo., Poplar Bluff—Missouri Pacific R. R. E. A. Hadley, Ch. Engr. St. Louis, Mo., will construct repair shop; \$10,000; invites bids.

### Road and Street Construction.

Ala., Anniston—City will construct cement and concrete sidewalks on Leighton, Lapsley, Goodwin and other ayes. Address The Mayor.

Ala., Fairfield—City let contract to J. L. Mullarky, Ensley, Ala., to construct asphaltic concrete paving; Walter Schoel, Engr. (Lately noted.)

Ala., Scottsboro—State Highway Comsn., Montgomery, Ala., let contract to Scottsboro Construction Co., at \$46,000 to construct 6 mi. limestone macadam road; A. P. Henderson, Div. Engr., Decatur, Ala.

Ark., Camden—E. M. Sheffok, Elgin, Ill., was low bidder for paving 1 mi. streets in business section, at \$91,401.35.

Ark., Fayetteville—Washington County will construct 20 mi. graded road in Improvement Dist. No. 10; bids until Oct. 1; Ozark Engineering Co., Engr., Springdale, Ark. (See Machinery Wanted—Road Construction.)

Ark., Fayetteville—City, Allan M. Wilson, Mayor, let contract to Moreno-Burkham Construction Co., to pave 10 blocks hot mix paving in business section; \$45,500 available; A. E. Collier, Chmn. E. Street Improvement Dist. Comm. (Lately noted.)

Ark., Searcy—T. A. Watkins, Commr. Searcy, Walter L. Robbins, Rose Bud, Ark., prepared plans to build hard-surface road from Searcy to Cleburne county line; 25 mi.; will issue bonds; also let contract.

D. C., Washington—Dist. Commrs. will pave and resurface streets and avenues with sheet asphalt; bids until Sept. 12; Charles W. Kutz, Commr. (See Machinery Wanted—Paving.)

Fla., Daytona—City plans surfacing Ridgewood, Orange, Magnolia and Volusia Aves. with tarvin; \$15,000; A. Milligan, Mayor.

Fla., Jacksonville—City will pave Park St. from Lee St. viaduct to Forest St. Address The Mayor.

Fla., Jacksonville—City let contract to Adams-Evans Co., at \$47,000 to pave Park place from Lee St. viaduct to Forest St.

Fla., Lake Wales—City plans to pave various streets; about \$100,000; J. W. Turner, Engr., Lakeland, Fla.

Ga., Savannah—City will pave Dale Ave., Lincoln, Bay, Price and other streets; Thomas Halligan, Clk. Council.

Ky., Louisville—State Highway Comsn., Frankfort, Ky. let contract to Louisville Asphalt Co., at \$161,582.21 to construct 4.5 mi. reinforced concrete on Bardstown road; State Project No. 3, Section A; Federal Aid Project No. 50, Jefferson County. (Lately noted inviting bids.)

Ky., Richmond—State Highway Comsn., Frankfort, Ky. let contract to Geo. T. Miller, Lebanon, Ind., at \$243,287.45 to construct 7 mi. reinforced concrete on Dixie highway in Madison County; State Project No. 5, Section A; Federal Aid Project No. 49. (Lately noted inviting bids.)

Ky., Winchester—State Highway Comsn., Frankfort, Ky. let contract to S. M. Billiter, Covington, Ky., at \$352,889.20 for constructing 9.5 mi. Kentucky rock asphalt on Midland Trail in Clark County; State Project No. 47, Section A; Federal Aid Project No. 63. (Lately noted inviting bids.)

La., Alexandria—City will pave sidewalks with concrete and construct curbing with cement on rear of 13th to Lee Sts; bids until Sept. 6; V. M. Ake, Secy.

La., Amite—Tangipahoa Parish will construct 3.1 mi. Amite West road in Road Dist. No. 5; bids until Sept. 27; J. M. Fourmy, Engr., Hammond, La. (See Machinery Wanted—Road Construction.)

La., Marksville—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La., will construct without gravel surfacing 11.73 mi. Bunkie, Long Bridge highway, Avoyelles Parish; bids until Sept. 12; Duncan Buyle, State Highway Engr., New Orleans. (See Machinery Wanted—Road Construction.)

La., Monroe—City plans to pave 12 mi. streets including Louisville, Alexandria, Walnut, Second, Third, Riverside and others; R. S. Reynolds, City Engr. (Lately noted.)

La., Shreveport—City will pave Wall St. from Gilbert to Marshall; asphaltic concrete; Battle St., from Spring to Commerce St.; brick; bids until Sept. 13; J. C. Flanagan, Secy-Treas. (See Machinery Wanted—Paving.)

Md., Baltimore—City will pave Lambert, Brewer, King and other streets; R. Keith Compton, Chmn. Paving Comsn, 214 E. Lexington St.

Md., Frederick—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct section of State highway from St. Anthony to Motters Station; 1.83 mi.; concrete; Frederick County, Contract F-40; bids until Sept. 13. (See Machinery Wanted—Road Construction.)

Md., Frederick—State Roads Comsn, 601 Garrett Bldg., Baltimore let contract to M. J. Grove Lime Co., Frederick, at \$34,481.10 to construct 1 mi. section concrete road from Henderson's Corner toward Clarksburg; Frederick County.

Miss., Macon—Noxubee County will grade Archer Lane road; bids until Sept. 17; W. B. Butler, Road Commr. (See Machinery Wanted—Road Construction.)

Mo., Excelsior Springs—City let contract to H. Tidd, Brookfield, Mo., at about \$25,000 to pave various streets.

Mo., Jackson—State Highway Dept., Jefferson City, Mo., let contract to Linns Penzel, Jackson, at \$9,093.43 to construct 2.25 mi. State road from Jackson northward; State Aid Project 20.70; M. S. Murray, Div. Engr., Sikeston, Mo. (Lately noted.)

Mo., Jefferson City—City will pave Highway St.; bids until Sept. 16; also plan paving other streets. Address The Mayor.

Mo., Kansas City—Board Public Works, let paving contracts as follows: Parker Washington Co., at \$5,925.75 for reconstructing asphaltic concrete pavement on Madison Ave. between 17th and 18th Sts.; at \$6,036.30 to construct rock asphalt pavement on W. Prospect place between 16th St. and Adaline place; E. D. Tyner, at \$5,825.36 to construct rock asphalt pavement on 11th St. between Wyandotte St. and Baltimore Ave.; James O'Connor

& Son, at \$1,930.92 to construct plain concrete pavement on 44th St. terrace between Broadway and Wornall road; J. E. Walsh, at \$1,331.94 to construct plain concrete pavement on alley between Holmes and Cherry Sts.

Mo., Kansas City—Board Public Works, contemplates constructing plain concrete pavement on 59th St. between Wabash and Prospect Aves; vibrated concrete pavement on alley between Jefferson St. and Pennsylvania Ave.; reconstruct bituminous macadam pavement on 49th St.

Mo., Macon—State Highway Dept., Jefferson City, Mo., will construct 4.93 mi. State road from Macon northward and southward; State Aid Project 20.51; bids until Sept. 3; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

Mo., Memphis—State Highway Dept., Jefferson City, Mo., will construct 2.99 mi. State road from Memphis eastward and westward; State Aid Project 20.51; Scotland County; \$22,552.82; bids until Sept. 10; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (See Machinery Wanted—Road Construction.)

Mo., Osceola—State Highway Dept., Jefferson City, Mo., will construct 6.23 mi. State road from Osceola northward and southward; State Aid Project 20.74, St. Clair County; \$24,404.18; 3.39 mi. State road from Osceola southeastward; \$18,408.26; State Aid Project 20.75, St. Clair County; bids until Sept. 6; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Palmyra—State Highway Dept., Jefferson City, Mo., will construct 3.29 mi. State road from Taylor northward and southward; State Aid Project 20.29; Marion County; bids until Sept. 2; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

Mo., Richmond—State Highway Dept., Jefferson City, Mo., let contract to Liberty Construction Co., Kansas City, Mo., at \$22,886.46 to construct 1.77 mi. State road from Richmond northward; State Aid Project 20.65, Ray County; A. C. Singley, Div. Engr., St. Joseph, Mo. (Lately noted.)

Mo., Troy—Lincoln County sold \$200,000 road construction bonds. Address County Commrs.

Mo., Unionville—State Highway Dept., Jefferson City, Mo., will construct 5.44 mi. State road from Unionville westward; State Aid Project 20.49, Putnam County; bids until Sept. 9; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (See Machinery Wanted—Road Construction.)

Okl., Bartlesville—City will improve streets; may issue \$27,000 bonds. Address The Mayor.

N. C., Asheville—Mount Mitchell Development Co., inctpd., with \$100,000 capital; construct motor road.

N. C., Bakersville—North Carolina State Highway Comsn., Raleigh, N. C., let contract to Fiske-Carter Construction Co., Greenville, S. C., at \$160,000 to construct 40,000 sq. yds. concrete pavement in Mitchell County; Project 505.

N. C., Brevard—Transylvania County will construct 10 mi. road between Rosman and Pickens county line; Thomas H. Shipman, Chmn. Road Comsn.

N. C., Dobson—Surry County let contract to Mullican & Co., at about \$100,000 to construct State highway from Westfield to Clemons' ford bridge and to build steel bridge across Big Creek; W. W. Thomas, Chmn. County Commrs. (Lately noted.)

N. C., Gastonia—North Carolina State Highway Comsn., Dist. Office, Charlotte, N. C., will construct 3.02 mi. State Highway in Gaston County; 31,570 sq. yds. plain cement concrete, reinforced concrete or combination cement concrete base and header course pavement with 29,810 sq. yds. Topeka, sheet



asphalt or Natural rock asphalt surfacing; etc; bids until Sept. 10. (See Machinery Wanted—Road Construction.)

N. C., Hayesville—State Highway Comsn., Raleigh, N. C., will construct 14 mi. road from Brass town to Hayesville; Clay County; Project No. 548; bids until Sept. 20.

N. C., Hickory—City will sell \$125,000 street improvement bonds; R. G. Henry, City Mgr. and Clk.

N. C., Marshall—State Highway Comsn., Raleigh, N. C., will construct 13 mi. road from forks of Ivy to Swiss; Madison County; Project No. 557.

N. C., Murphy—State Highway Comsn., Raleigh, N. C., will construct 8 mi. road in Cherokee County; Project No. 534; bids until Sept. 20.

N. C., Marion—North Carolina State Highway Comsn., Raleigh, N. C. let road contracts as follows: J. W. Stapp & Sons, Rome, Ga., at \$34,000 to construct 7.19 mi. top-soil or gravel road west of Marion; Project No. 571; Lee J. Smith Construction Co., Charlotte, N. C., at \$163,000 to construct 10.6 mi. soil road between Project No. 571 and Old Fort; Project No. 572; both McDowell County. (Lately noted.)

N. C., Robbinsville—State Highway Comsn., Raleigh, N. C., will construct 14 mi. road from Topton to Robbinsville; Graham County; Project No. 545.

N. C., Rocky Mount—City will pave streets and construct sewers; contemplates issuing \$750,000 bonds. Address The Mayor.

N. C., Rutherfordton—North Carolina State Highway Comsn., Raleigh, N. C. let contract to Michaux Construction Co. Albemarle, N. C., at \$33,500 to grade 6.55 mi. soil road in Rutherford County; Project 547; 38,000 yds. earth.

N. C., Statesville—North Carolina State Highway Comsn., Dist. Office, Charlotte, N. C., will construct 7.88 mi. State Highway in Iredell County; 83,210 sq. yds. one course plain cement concrete, reinforced concrete or concrete base and header course pavement; 78,590 sq. yds. Topeka sheet asphalt or Natural rock asphalt surfacing; bids until Sept. 10. (See Machinery Wanted—Road Construction.)

N. C., Washington—City will pave streets; \$700,000; Caleb H. Sterling, Mayor. (Previously noted.)

Okla., Muskogee—City will construct 1 mi. sidewalk from Midland Valley street car to Edison school; \$5,000. Address The Mayor.

Okla., Pryor—Mayes County plans paving 34 mi. Jefferson highway. Address County Comms.

Okla., Sand Springs—City let contract to Green Construction Co., Oklahoma City, Okla., at \$178,778.85 for paving Dists. No. 3 and No. 4; 34,725 sq. yds. vibrolithic concrete paving; Holway Engineering Co., Engr., 332 Atco. Bldg., Tulsa, Okla.

Okla., Wagoner—Wagoner County may issue \$300,000 road bonds. Address County Comms.

S. C., Anderson—Anderson County will construct 4 mi. Dunham's bridge road and 8 mi. Alford's Bridge road; low bidder R. H. Wright & Son, Asheville, N. C.; W. A. Sanders, County Engr. (Lately noted inviting bids.)

S. C., Greenville—Greenville County will construct 3 mi. Saluda road; bids until Sept. 12. Address County Supvr. (Lately noted to vote on bonds.)

S. C., Winnsboro—Fairfield County will sell \$50,000 bonds for road construction; M. C. Boulware, County Supvr.

Tenn., Athens—McMinn County will sell

\$100,000 bonds for road construction; John B. Elliott, Chrmn. County Court.

Tenn., Athens—City let contract to Gamble & Brown, Chattanooga, Tenn., at \$82,000 to improve streets; concrete; \$90,000 available; J. B. McCalla, Engr., Knoxville, Tenn. (Lately noted.)

Tex., Arlington—City will pave Center St. asphalt; also plan other paving later. Address The Mayor.

Tex., Atlanta—City will pave streets in business section; vitrified brick; H. N. Roberts, Engr.

Tex., Beeville—City has let \$65,000 paving contracts; plans other paving; W. T. Thompson, Mayor.

Tex., Coleman—Coleman County let road contracts as follows: Ed. Shelton, Temple, Tex., to construct 6 mi. Rockwood and Santa Anna road; Burk, Firman & Hart, Comanche, Tex., to construct 23 mi. road in Leeday and Voss section. Address County Comms.

Tex., Dallas—City will pave Ninth St. from Willomet St. to Bishop Ave.; \$63,080.72; Preston road from Wycliff St. to point south of Irwing St.; \$37,873.78; Geo. L. Fairtrace, City Engr.

Tex., Fort Worth—Tarrant County will construct 26 mi. Handley village school road; bids until Sept. 8. Address County Comms.

Tex., Fort Worth—City will improve Galveston Ave. from Rosedale St. to Magolia Ave.; 2,795 sq. yds. pavement; 1,728 lin. ft. curb; 3,480 sq. ft. gutter; etc.; bids until Sept. 6; D. L. Lewis, City Engr. (See Machinery Wanted—Paving.)

Tex., Harlingen—City will improve streets; issued \$40,000 bonds. Address The Mayor.

Tex., Henrietta—Clay County will construct roads; may vote on \$2,000,000 bonds.

Tex., Hillshoro—Hill County will complete 6.81 mi. Colorado-to-Gulf. 7.15 mi. King of Trails north and 12.3 mi. King of Trails south highways; bids until Sept. 7; Marion Clyette, County Auditor. (See Machinery Wanted—Road Construction.)

Tex., Jasper—Jasper County will construct hard-surfaced roads; voted \$250,000 bonds.

Tex., McKinney—Collin County will let contract for construction of Dallas branch of Highway No. 5; 35 mi. Address County Comms.

Tex., Odessa—Ector County will construct 25 mi. road; cost \$200,000; bids in October; B. W. Baker, County Engr. Big Spring, Tex. Lately noted. (See Machinery Wanted—Road Construction; Excavating and Conveying Machinery; Locomotives; Motor Trucks; Etc.; Wagon Loaders; Road Building Machinery.)

Tex., Sonora—Sutton County sold \$35,000 road construction bonds. Address County Comms.

Va., Fort Myer Heights—U. S. Bureau Public Roads, Washington, D. C., is co-operating with Arlington County in constructing 16,000 sq. yds. surfacing, 8,000 cu. yds. excavation; concrete road surfaces of various kinds; \$45,000; Hyde & Baxter, Contrs., 1311 G. St., N. W. Washington, D. C.; Vernon M. Pierce, Engr., Dist. Engr., Washington, D. C.

Va., Luray—Town let contract to H. C. Brooks Co., Martinsburg, W. Va. to repair streets; tarvia.

Va., Lynchburg—City let contracts for concrete paving. Address The Mayor.

Va., Martinsville—Henry County will construct 72 mi. roads; sold \$425,000 bonds; T. C. Matthews, Clk.

Va., Portsmouth—Norfolk County will construct macadam roadway on Bolling Ave., Larchmont; bids until Sept. 9; Address

Comsn. Roads and Bridges; R. B. Preston, Engr. (See Machinery Wanted—Road Construction.)

W. Va., Clarksburg—City will construct 4,700 sq. yds. vitrified brick paving on concrete base; 1,890 ft. concrete curb; bids until Sept. 9; D. H. Hamrick, City Clk. (See Machinery Wanted—Paving.)

W. Va., Clarksburg—Harrison County Board of Education will construct 2,400 sq. ft. sidewalk at North View school building and 2,000 sq. ft. concrete sidewalks at Despard school building; bids opened; E. L. Fittro, Prest.

W. Va., Huntington—City will grade and drain road through new addition of Ritter Park; 5,000 cu. yds. excavation; etc.; bids until Sept. 13; Mat Miser, Commr. Streets and Sewers; A. B. Maupin, City Engr. (See Machinery Wanted—Road Construction.)

W. Va., Huntington—City opened bids for paving streets; low bidder for 17th St. from Ritter Ave. to McVeigh Ave., gravel base, Gerschow & McGinnis, at \$9,768; 13th St. from Fourth to Seventh Aves., gravel base, Ray & Ward, at \$19,571.50; 27th St., Fourth Ave., etc., gravel base, Amos Trainer, at \$85,201.70, etc.; Mat Miser, Commr. Streets and Sewers. (Lately noted inviting bids.)

W. Va., Ronceverte—City will construct 16-ft. roadway on Monroe Ave.; bids until Sept. 6; A. S. Woodhouse, City Clk.

W. Va., St. Albans—City will construct 2,400 sq. yds. paving; 1,500 lin. ft. curb and gutter; etc.; bids until Sept. 23; L. A. Edwards, City Clk. (See Machinery Wanted—Paving.)

### Sewer Construction.

Ala., Montgomery—City, J. L. Cobbs, Treas., will install storm sewers in Mary St. between Court and Sayre Sts.; bids opened; H. A. Washington, City Engr. (See Machinery Wanted—Sewers.)

Ark., Fort Smith—City, Acting Mayor Miller, will construct storm sewer on Wheeler Ave. between C and G Sts.

Ark., Lapanto—Town, R. C. Finn, Recorder, will install sewer, water and electric light systems; will issue \$100,000 bonds.

Fla., Inverness—City plans installing sewer and water systems. Address The Mayor. (Lately noted to vote on bonds.)

Ky., Frankfort—City, W. S. Rosson, Mayor, will construct sanitary sewer and drainage canal through Thorn Hill, from Reformatory to river at O. F. C. distillery; bids opened; S. F. Creelius, Civil Engr., Danville, Va. (Lately noted.)

Ky., Paducah—City, F. W. Katterjohn, Mayor, plans constructing trunk line sewer; install laterals and drains in Sewer Dist. No. 3; contemplates voting in Nov. on \$800,000 bonds; A. W. Alvord, Engr., Chicago, Ill. (Lately noted.)

La., Bossier City—City plans installing sewerage system. Address The Mayor.

Md., Baltimore—Department of Public Improvement, Board of Awards, Mayor Wm. F. Broening, Prest., will construct Leucost Point Interceptor Section No. 3 (Sanitary Contract No. 160); 4,476 cu. yds. earth excavation; 2,455 lin. ft. 27-in. sewer; 11 manholes; 2,400 lin. ft. under drain, etc.; lately noted; also construct sewers and house connections in Dists. No. 37-B and 34-F. (Sanitary Contract No. 184); 19,798 lin. ft. 8 to 12-in. vitrified pipe sewer; 6,922 lin. ft. house connections; 400 lin. ft. 4 and 6-in. under drain; 100 manholes; 935 6-in. branches on sewer; bids until Sept. 14; A. E. Christ-hilf, Highways Engr.; H. G. Perring, Ch. Engr. (See Machinery Wanted—Sewers, etc.)



La., Opelousas—City will install sewer system; bids opened: E. L. Loeb, Mayor.

Mo., Cape Girardeau—City plans installing sewers in West End. Address The Mayor.

Mo., Maplewood—City, Jno. D. Schuster, Mayor, let contract to J. F. Ansbros, Wainwright Bldg., to lay intercepting sewer and water mains in various streets; A. H. Beard, Engr., Chemical Bldg.; both St. Louis, Mo. (Lately noted bids until Aug. 10.)

N. C., Asheville—J. T. Horney, Grove Park, let contract to Kelly & Wilson, at \$111,000, to install sewer and water systems in 100-acre park; City Engr. Lee. (Lately noted.)

N. C., Rocky Mount—City contemplates issuing \$750,000 sewer and street bonds. Address The Mayor. (Lately noted.)

S. C., Greenwood—City, A. McD. Singleton, Treas., plans extending sewer system in Edgefield and Calhoun Aves., Woodrow, Lowell, Elliott, Pine Sts., Cokesbury Road to Pelzer St. etc.; bids until Sept. 15; Lee, Pennell and Murray, Engrs. (Lately noted plans extending sewer system.)

S. C., Walhalla—Town, W. M. Brown, Mayor, will install sewer and water systems; lay 8-in. terra cotta pipe; J. B. McCrary Engineering Co., Engr., Atlanta, Ga.; plans voting about Nov. 1 on \$25,000 bonds. (Lately noted.)

Tex., Harlingen—City issued \$48,000 sewer bonds. Address The Mayor.

Tex., Harrisburg—City will issue \$85,000 sewer bonds. Address The Mayor.

Tex., Houston—City, O. F. Holcombe, Mayor, will construct 650 ft. sanitary sewer in San Bernard St. from McKinney Ave. to alley in block No. 16; bids opened. Lately noted

Tex., Ladonia—City will sell \$35,000 sewer bonds; A. W. House, City Secy.

Tex., Mission—City will issue \$15,000 sewer bonds. Address The Mayor.

Tex., Stephenville—City will issue \$10,000 sewer bonds. Address The Mayor.

Va., St. Paul—City plans constructing 10,000 ft. vitrified pipe sewers; bond issue authorized; W. W. Bennett, Engr., Rocky Mount, Va.

Va., Williamson—City will improve sewerage and water systems; Hill & Ferguson, Consult. Engrs., 112 E. 19th St., New York. Address The Mayor.

W. Va., Ronceverte—Board of Commrs., A. S. Woodhouse, City Clk., will construct 200 ft. 6-in. sewers in Ronceverte Ave., east of Elm St.; bids opened. (See Machinery Wanted—Sewers.)

W. Va., Huntington—City, Mat Miser, Commr. of Streets and Sewers, let contract to Amos Trainer, at \$2,145, to construct sewers in alley between 30th and 31st Sts., from 6th Ave. to B. & O. right-of-way; to J. Uliom, at \$2,442.40, to construct sewers in 3½ Alley between 28th and 29th Sts.; A. B. Maupin, City Engr. (Lately noted bids until Aug. 27.)

W. Va., St. Albans—City, L. A. Edwards, Clk., will install 3 water boxes; construct 120 lin. ft. 12-in. storm sewer; bids until Sept. 23; J. M. Oliver, City Engr. (See Machinery Wanted—Sewers.)

### Telephone Systems.

Ga., Cartersville—Southern Bell Telephone Co., Atlanta, Ga., will expend \$15,000 on improvements; modernize wire circuits, etc.; R. M. Collins, local Mgr.; Mr. McGee, in charge of construction.

Ga., Savannah—Southern Bell Telephone Co., Atlanta, Ga., will make extensive improvements, placing wires underground.

La., Monroe—Cumberland Telephone & Telegraph Co., O. H. Bynum, local Mgr. will probably expend \$50,000 to \$60,000 on improvements, build 8 or 10 mi. cable, additional switch board facilities, etc.; F. C. Weems, Engr., New Orleans, La.

### Textile Mills.

Ga., Griffin—Hosiery—Griffin Hosiery Mills, Thos. L. Shapard, Prest.; let contract to erect 80x50 ft. brick construction addition, costing \$15,000; acquired Kincaid Knitting Mills; install 120 additional machines; increase to 300 machines; electric power; daily output 3,000 doz. including production of other plant; Wheaton & Tyus Co., Engr.—Arch. (Lately noted to construct mill addition.)

Md., Hagerstown—Hosiery—Interwoven Mills, Geo. F. Mullis, Gen. Mgr., Martinsburg, W. Va.; purchased site; will erect hosiery mill.

N. C., Kings Mountain—Cotton Goods—Patricia Mills, capital \$200,000, organized by C. E. Neisler, Sr., and C. E. Neisler, Jr.

N. C., Kings Mountain—Cotton Goods—Nargrace Mills, capital \$600,000, organized by C. E. Neisler, Sr., and C. E. Neisler, Jr.

N. C., Kings Mountain—Cotton Goods—Pauline Mills, capital \$400,000, organized by C. E. Neisler, Sr., and C. E. Neisler, Jr.

Okla., Muskogee—Cotton Products—Cotton Products Co., capital \$100,000, inceptd. by W. D. Egoft and Max Davidson.

S. C., Anderson—Cotton Goods—Jackson Cotton Co., capital \$10,000, inceptd. by J. E. McGee and H. L. Jackson.

S. C., Greenville—Yarns—Jenkins Mills, capital \$25,000, inceptd. with J. A. Jenkins, Prest.—Treas.; W. H. Gary, V-P.; G. H. Striggs, Secy.

Tenn., Columbia—Sheetings, etc.—Columbia Cotton Mills Co., W. F. Embry, Mgr., will improve plant; install spinning frames and 50 additional looms.

### Water Works.

Ala., Talladega—City, J. W. Vandiver, Mayor, contemplates expending \$235,000 to install plant; daily capacity 2,000,000 to 4,000,000 gals.; install 5 mi. piping, pump house, settling basin, filtering basin reservoir; J. H. Lawson, Engr. (Lately noted plans improving water system.)

Ark., Lapanto—Town, R. C. Finn, Recorder, will install water, sewer and electric light systems; will issue \$100,000 bonds.

Fla., Gainesville—City may let contract to Robert & Co., Atlanta, Ga., to improve water and electric light plant; issued \$30,000 bonds. Address The Mayor.

Fla., Inverness—City plans installing water and sewer systems. Address The Mayor. (Lately noted to vote on bonds.)

Fla., St. Augustine—City plans laying water mains on Washington St. from South to Lincoln Sts.; install hydrants. Address The Mayor.

Ga., Thomasville—City, E. M. Smith, Jr., Clk., will construct 500,000-gal. capacity reinforced concrete storage reservoir; bids opened. (Lately noted.)

Fla., Valparaiso—City, A. P. Kastler, Clk., will install water-works; 13,000 ft. 4 to 8-in. cast iron or wood water mains; 30,000-gal. tank with 100-ft. tower; 70-G. P. M. centrifugal pump with 10-H. P. oil or gasoline motor, belt connected; 9 fire hydrants, and necessary fire specials; bids until Sept. 15; Laurence H. McCullough, Engr., Valparaiso, Fla., and Kingstree, S. C. (See Machinery Wanted—Water-Works.)

Ky., Carrollton—City will improve water and electric plant; install pumps and water meters; vote Nov. 8 on \$18,000 bonds; J. E. Gullion, Mayor.

Ky., Nicholasville—City will construct concrete reservoir at pumping station; bids opened. Address The Mayor.

La., Abbeville—City will construct water and light plant; voted \$125,000 bonds. Address The Mayor. (Lately noted to vote.)

La., Bossier City—City contemplates installing water-works. Address The Mayor.

Md., Baltimore—City, Wm. F. Broening, Mayor, plans expending \$8,000 to extend water-works; construct 900-ft. 10-in. water main to provide duplicate feed for mfg. establishments north of Valley of Jones Falls and west of Greenmount Ave., Wm. A. Megraw, Water Engr. (Lately noted.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening will construct balancing reservoir, surge tank and closing shaft 13, Contract No. 51, Water Department; earth dam, sinking 2 shafts 12-ft. in diameter about 30 ft., etc.; 14,000 cu. yds. rolled earth embankment; 2,400 cu. yds. rock excavation; bids until Sept. 10; Wm. A. Megraw, Water Engr.; Harry G. Perrin, Ch. Engr. Lately noted. (See Machinery Wanted—Water-Works.)

Mo., Maplewood—City John D. Schuster, Mayor, let contract to J. F. Ansbros, Wainwright Bldg., to lay intercepting water and sewer mains in various streets; A. H. Beard, Engr., Chemical Bldg., both St. Louis, Mo. (Lately noted bids until Aug. 10.)

Mo., Poplar Bluff—City will construct addition to plant; also relay 2-4-6-in. mains; day labor. Address The Mayor. (Lately noted.)

Mo., St. Louis—West St. Louis Pipe Line Co., capital \$150,000, inceptd. by Jno. E. Riley and Taylor S. Carter.

Mo., Searsville—City will improve water-works; voted \$12,000 bonds. Address The Mayor.

N. C., Asheville—J. T. Horney, Grove Park, let contract to Kelly & Wilson, at \$111,000, to install water and sewer systems in 100-acre park; City Engr. Lee. (Lately noted.)

Okla., Crescent—City will install water-works and electric lights; plans voting on \$60,000 bonds. Address The Mayor. (Lately noted.)

Okla., Pawhuska—City let contract to Stanton-Ammerman & Co., Wichita, Kansas, to construct filtration plant, extend distribution system and erect 2,000,000-gal. capacity steel tank. Address The Mayor. (Lately noted.)

Okla., Pryor—City will construct water purification and electric pumping plants at Pryor Creek; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City, inviting bids.

Okla., Tulsa—City let contract to Tibbetts & Pleasants, 203 Daniels Bldg., at \$129,000 to extend water-works consisting of 12-MGD low service pump, 4 filter units, new settling basin, extension to filter house, piping, etc.; Holway Engineering Co., Engr., 332 Atco Bldg., W. W. Horster, Constr. Engr. (Lately noted bids until Aug. 18.)

S. C., Gaffney—Town is extending water mains. Address The Mayor.

S. C., Greenville—Government will install water main in United States Public Health Service Hospital No. 26; construct 125,000-gal. capacity tank.

S. C., Walhalla—Town, W. M. Brown, Mayor, will install water and sewer systems; erect 400,000-gal. capacity plant; construct 30-ft.



dam for impounding water, gravity system from Issaquena Falls; install stand pipe and pipe line; construct 60,000-gal. steel tank; J. B. McCrary Engineering Co., Engr., Atlanta, Ga.; plans voting about Nov. 1 on \$125,000 bonds. (Lately noted.)

Tex., Comanche—City, J. R. Eaves, Mayor, will expend \$15,000 to extend plant; 100,000-gals daily capacity; construct concrete reservoir, new wells, pumps and about 7,000 ft. 6-in. mains. (See Machinery Wanted—Pumps; Motors.)

Tex., Fort Worth—City, Water Commr. Lord, plans expending \$200,000 to install 24-in. main in South Side. (Lately noted improve water purification system.)

Tex., Ladonia—City will sell \$15,000 water bonds; A. W. House, City Secy.

Tex., Mission—City will issue \$40,000 water-works bonds. Address The Mayor.

Tex., Plainview—City will extend water system. Address The Mayor. (Lately noted voted bonds.)

Tex., San Angelo—San Angelo Water, Light & Power Co., M. F. Treadwell, Mgr., will expend \$5,000 to \$7,000 to lay 1½ mi. 6-in. mains on Angelo Heights, and other sections.

Tex., Texline—City will construct water system and electric light plant; voted \$55,000 bonds; J. H. Bender, Engr., Clayton, N. M. Address The Mayor.

Va., Charlottesville—City contemplates constructing water-works to Moorman's River. Address The Mayor.

Va., Williamson—City will improve water and sewerage systems; Hill & Ferguson, Const. Engrs., 112 E. 19th St., New York. Address The Mayor.

Va., Yorktown—Bureau of Yards and Docks, Navy Dept., Washington, D. C., will construct reservoir, power house, dispensary, etc.; (Spec. 4498); bids until Sept. 14; M. A. Long Co., Engr., 1523 Munsey Bldg., Baltimore, Md. Lately noted plans constructing reservoir. (See Machinery Wanted—Water—Works.)

W. Va., Elkins—City, H. G. Kump, Mayor, will improve and extend water-works; voted \$125,000 bonds. (Lately noted to vote.)

W. Va., Mullens—Mullens Water—Works, will expend \$50,000 to install plant; daily capacity 150,000-gals.; construct 30x20x16-ft. fireproof building; install 500-G. P. M. air lift and centrifugal pump; electrically driven by 2,200-volts, 3-phase, 60-cycle; construct 100,000-gal. capacity steel tank; bids in about 30 days; West Virginia Engineering Co., Engr., Box 159, Charleston, W. Va. Lately noted inceptd., capital \$100,000. (See Machinery Wanted—Pumps; Motors.)

### Woodworking Plants.

Ark., Stephens—Staves, etc.—Ozark Stave & Timber Co., Marvin Hodnett, local Mgr., will establish mill to mfr. staves and cooperage materials.

Mo., St. Louis—Automobile Bodies—General Woodwork Mfg. Co., 3201 N. Broadway, organized with C. M. Schafer, Prest.; C. W. Redecker, V. P.-Mgr.; acquired established plant to mfr. automobile and truck bodies.

N. C., Durham—Box Shooks—Cheek—Holtan Lumber Co., John M. Cheek, in charge will erect plant to mfr. box shooks.

Tenn., Memphis, Chests, etc.—Red Cedar Products Co., capital \$10,000, inceptd. by H. B. Weiss, LeRoy Holyard and C. E. Brower.

### Fire Damage.

Ala., Montgomery—Jordan Milling Co.'s plant.

Ala., Goodwater—Flake Graphite Co.'s plant; loss \$500,000.

Ala., Troy—Bassett Car & Truck Co.'s office and garage; White Star Market building; T. J. Hollis' store and lunch room.

D. C., Washington—A. C. Violette's fishing lodge on C. & O. canal, 23 mi. from Washington.

Fla., Live Oak—F. M. Green's building on Howard St. nr. Ohio Ave.

Fla., Tampa—Gullo Brothers' cigar factory, 17th St. and 8th Ave., loss \$30,000.

Fla., Vernon—J. C. Jackson's store.

Ga., Columbus—Columbus Sewer Pipe Co.'s plant, J. C. Buchanan, Mgr., Glade Road; loss \$75,000; Central of Georgia Ry. Co.'s round house, Claude Baldwin, Supt. of Columbus Div.; loss \$45,000.

Ky., Harrodsburg—Davenport Battery Co.'s building; loss \$30,000.

Ky., Hodgenville—D. G. Hays' store and warehouse.

Ky., Switzer—Mrs. Laura Green's, Lee Jones' and Barber & Riddle's stores; loss \$15,000.

La., Monroe—Benson Lumber Co.'s four dry kilns.

Md., Baltimore—Frank J. Murphy's garage at 817 Ensor St.

Md., Frederick—Residence at E. 5th St. and Middle Alley, owned by Fred. Kopp, W. 5th St.

Miss., Vicksburg—Christian & Brough's building.

Mo., St. Louis—Post Dispatch press room and presses; loss \$12,000.

N. C., High Rock—Winston-Salem South-bound R. R. station; H. E. Fries, Prest.-Gen. Mgr., Winston-Salem.

N. C., Monroe—Monroe Vulcanizing Co.'s plant.

N. C., Rocky Mount—Rocky Mount Mills; loss \$10,000.

Okla., Pawhuska—Ferguson Motor Co.'s garage; loss \$25,000.

S. C., Lydian—M. M. Marshall & Bro's., Geo. O. Lee & Son's, Blackmon-Suggs Drug Co.'s and L. F. Watford's stores; loss \$36,000.

Tenn., Halls—Pugh Building at Main and Front Sts. occupied by Sumrow-Hearn Drug Co., Anderson Barber Shop and Bess & Norvell; loss \$12,000.

Tenn., Greeneville—Gem Theater owned by W. T. Howard; loss \$30,000.

Tex., Brownwood—Eli McComb's residence near Delaware; loss \$10,000.

Tex., Hunt—B. F. Tuttle's ranch house on Johnson Fork; loss \$10,000.

Tex., Leesville—J. P. Towns' residence.

Tex., Lufkin—Cotton Belt Lumber Co.'s plant; loss \$50,000.

Tex., Mineral Wells—Leslie DeBusk's residence; loss \$12,000.

Tex., Paris—Bennett Printing Co.'s plant, loss \$40,000; building owned by John T. Dickson, loss \$4000.

Tex., Rosebud—Farmers Union Warehouse Co.'s building.

Tex., San Antonio—San Antonio Grain Co.'s and V. A. Webster Grain Co.'s warehouses.

Tenn., Shelbyville—Odd Fellow's building; Louisville & Nashville passenger depot at Cropper Station, 12 mi. from Shelbyville.

Tex., Tyler—Ford Motor Co.'s repair shop; John A. Bryant Motor Co.'s shop; residence of Mrs. J. Y. Campbell; loss \$75,000.

Tex., Wharton—Will Gordon's residence.

Va., Fredericksburg—Walter Wilson's planing mill; loss \$50,000.

Va., Lynchburg—Lynchburg Glass Works; N. D. Eller, Prest.; loss \$10,000.

W. Va., Pawpaw—Potomac Fruit Growers Club; Virginia Barrel Co.'s plant.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Apartment Houses.

Ark., Texarkana—Otto Moore will erect apartment house at 408 Hazel St.; 4 suites.

Ky., Louisville—Chas. Cronon, 32 Kenyon Bldg., will erect apartment house; 2 stories and basement; 2 suites; 33x34 ft.; brick, stone trim; wood floors; Fred Erhart, Archt., Norton Bldg.

Md., Baltimore—Louis Steele Realty Co., 118 W. Baltimore St., will erect apartment house at Mt. Royal Ter. and Whitelock St.; 50x120 ft.; 3 stories; brick; colonial design; steam heat; pitched slate roof; hardwood floors; 10 apartments of 7 rooms and bath each; John Freund, Archt., 1307 St. Paul St.; plans ready for estimates in about 2 weeks.

Mo., St. Louis—W. T. Dowley, 5972 Garfield Ave., will erect \$20,000 apartment house; 2 stories; 23x56 ft.; brick; Stephens & Pearson, Archts., DeMinkel Bldg.

Okla., Oklahoma City—H. W. Collins will erect 2-story store and apartment building on Robinson Ave., nr. 9th St.; brick.

Okla., Oklahoma City—A. Swaim will erect \$35,000 apartment house at 129 W. 2nd St.; brick.

Tex., Dallas—R. C. Walker will erect

\$10,000 apartment house; 20 rooms; frame; 4 suites.

Tex., Dallas—Mrs. Mary J. Wheeler will erect \$10,000 apartment house at 2632-34 Forest St.; 16 rooms; frame.

Tex., Galveston—R. R. Rapp is preparing plans for 3-story brick apartment house; 44x120 ft.; 42 suites; steam heat.

Tex., Port Arthur—Paul G. Silber & Co., Bedell Bldg., San Antonio, are preparing plans for 4 apartment houses; frame and stucco.

#### Association and Fraternal.

D. C., Washington—Knights of Columbus will expend \$25,000 to repair property at 914-18 10th St., N. W.

La., Jennings—Elks Lodge, H. L. Boudreaux, Secy., will remodel building.

#### Bank and Office.

Ark., Clarendon—Merchants & Planters Bank will receive bids until Sept. 22 to erect 1-story building; separate bids for plumbing, heating and wiring; plans at office of

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Thompson & Harding, Archts., 504 Southern Trust Bldg., Little Rock.

D. C., Washington—American Commercial & Savings Bank, Edw. Voigt, Jr., 727 7th St., N. W., will erect \$150,000 bank and office building at 7th and G Sts., N. W.; 5 stories; 40x103 ft.; stone and brick; J. Wring, Archt., 721 10th St., N. W.

Fla., Haines City—Growers' Commercial Bank will erect \$80,000 to \$100,000 building; 4 stories; brick and stone; terra cotta trim; Francis J. Kennard, Archt., Tampa. (Previously noted.)

Ga., Columbus—R. W. Needham will erect building to replace 5-story structure lately noted burned at loss of \$100,000.

Ky., Shepherdsville—Bullitt County Natl. Bank, J. F. Combs, Pres., will erect \$25,000 bank and office building; 2 stories and basement; 40x73 ft.; stucco on brick; wood floors and roof; C. C. & E. A. Weber, Archts., Miller Bldg., Cincinnati, O.

Mo., St. Louis—Federal Reserve Bank will erect \$2,000,000 building on Locust St., between Broadway and 4th St.; Mauran, Russell & Crowell, Archts., Chemical Bldg.; Hall & MacKay, Adolph Bldg., have contract for wrecking.

Okla., Oklahoma City—Oklahoma Branch of Federal Reserve Bank of Kansas City will erect building at 3rd St. and Harvey Ave.

W. Va., Ashland—Ashland Natl. Bank will erect 10-story building at 16th St. and Winchester Ave.

W. Va., Huntington—Miller—Ritter Co. will erect \$46,000 store and office building at 1018 4th Ave.; 2 stories; brick.

### Churches.

Fla., Jacksonville—Riverside Christian Church, Rev. Chas. W. Ross, Pastor, will erect building at Riverside Ave. and Cherry St.; brick; stone trim; 3 units; Gothic architecture; Marsh & Saxelbye, Archts.

Ga., Atlanta—Capitol Ave. Baptist Church, Rev. Dr. W. H. Major, Pastor, will remodel and erect addition to building at Georgia and Capitol Aves.; gray pressed brick; N. Sargent Hamilton, Archt.

Ga., Juliette—Brent Methodist Church will erect building at Brent. Address The Pastor.

Ga., Smyrna—Baptist Church will erect \$18,000 building; Fisk lock brick; slate roof; rift pine floors; hot air or steam heat; T. F. Lockwood, Archt., Columbus.

Ky., Louisville—Shawnee Christian Church, Rev. Geo. E. Tinsley, Pastor, will erect \$70,000 building at 40th St. and Broadway; Hunnywell Parker, Archt., Indianapolis, Ind.

Mo., St. Louis—Harney Heights Presbyterian Church, Rev. Geo. Percival, Pastor, 5088 Geraldine St., will erect \$40,000 chapel; 2 stories; 46x74 ft.; brick, stone trim; semi-fireproof; Albert B. Groves, Archt., Stock Exchange Bldg.

Tenn., Maryville—First M. E. Church will erect \$50,000 building. Address The Pastor.

Tenn., Paris—First Baptist Church will erect \$100,000 church and Sunday school building; main structure, 58x130 ft.; Sunday school wing, 48x50 ft.; brick; stone and structural steel; tile roof; concrete and hardwood floors; steam heat; hollow fireproof tile; interior tile; rolling partitions; ventilators; Brinton B. Davis, Archt., 413 Norton Bldg., Louisville, Ky.

Tex., Fort Worth—Mount Zion Baptist Church will erect \$37,000 building at Evans Ave. and Rosedale St. Address The Pastor.

Tex., Waco—Central Presbyterian Church.

Dr. J. O. Hall, Chrmn. Bldg. Comm., will erect \$30,000 building; 50x70 ft.; brick and stone; built-up roof; hardwood and concrete floors; hot air heat; metal ceilings; rolling partitions; ventilators; Paul G. Silber & Co., Archts., Bedell Bldg., San Antonio. (Lately noted.)

Va., Chatham—Baptist Church, Rev. T. Ryland, Pastor, will erect \$20,000 Sunday school building; 2 stories; 60x80 ft.; brick; Herbert L. Cain, Archt., 12 N. 9th St., Richmond. (Lately noted.)

Va., Petersburg—Washington Street Methodist Church, Rev. J. B. Winn, Pastor, 25 E. Washington St., will erect 2 wings and dome on structure; cost \$100,000; 2 stories; 34x104 ft.; brick; F. A. Bishop, Archt., Terminal Bldg. (Lately noted.)

W. Va., Renneville—Methodist Episcopal Church, South, Rev. W. S. Sponeuglia, Pastor, will erect \$30,000 building; 1 and 2 stories and basement; 85x46 ft.; brick and concrete; G. R. Ragan, Archt., Terry Bldg., Roanoke, Va. (Lately noted.)

### City and County.

Fla., Miami—Market—City, Col. Coe, City Mgr., will erect farmers' market building; 2 stories; offices on second floor; Geo. L. Pfeiffer, Archt.

N. C., Oxford—Municipal Building, etc.—City, Mr. Stem, will erect \$50,000 municipal building; theater and auditorium; 3 stories and basement; 60x90 ft.; brick and stone; Linthicum & Linthicum, Archts., 117 W. Martin St., Raleigh.

Tenn., Johnson City—Library—Library Board will erect Mayne Williams Library on Roan St.; cost \$35,000.

Va., Hopewell—Fire Station—City, D. L. Elder, Mayor, will erect fire station at Washington Circle, Dupont City.

Va., Norfolk—Fire Stations—City Council appropriated \$14,000 to repair fire stations.

W. Va., Huntington—Fire Station—City, C. W. Campbell, Mayor, will receive bids until Sept. 12 to erect addition to St. Cloud fire station and erect fire station, Walnut Hill; plans and specifications at office W. B. Smith, Archt., Robson-Prichard Bldg. (Lately noted in part.)

### Dwellings.

D. C., Washington—W. W. Adamson will erect four 2-story brick dwellings, 4620-26 9th St., N. W.; also 3-story brick dwelling, 4628 9th St., N. W.; cost \$25,000.

D. C., Washington—Louis C. Adkins, Jr., will erect three 2-story brick dwellings, 709-13 13th St., S. E.; cost \$15,000.

D. C., Washington—Paul Hummelfarb will erect 3-story brick and stone dwelling at 401 H St., N. W.; cost \$12,000.

D. C., Washington—F. M. Johnson will erect five 2-story brick dwellings, 4502-10 Iowa Ave., N. W.; cost \$30,000.

D. C., Washington—Winfield Preston will erect seven 2-story dwellings, 1454-66 Spring Pl., N. W.; brick; cost \$50,570.

D. C., Washington—G. S. and E. B. Seek will erect three 2-story frame dwellings, 1201-05 Geranium St., cost \$15,000.

D. C., Washington—Ted Spicer will erect 2-story hollow tile and frame dwelling at 7305 Alaska Ave., cost \$15,000.

Fla., Starke—Mayor L. A. Davis will erect residence.

Ky., Henderson—W. A. Stites, Ohio Valley Banking Co., will erect \$15,000 residence; 3 stories and basement; frame and brick veneer;

Alfred E. Nechs, Archt., 515 Wood Bldg., Evansville, Ind.

Ky., Kenton—Banner Fork Coal Corp. will erect 56 miners' dwellings; 40, four rooms each; 10, five rooms and 6, six rooms; cost \$150,000; R. F. Graf & Sons, Archts., Knoxville, Tenn.

La., Crowley—L. M. Davies will rebuild burned residence at 8th St. and Avenue G.

Md., Baltimore—Montebello Park Co., 11 E. Fayette St., will erect 4 dwellings at Maine and Grindon Aves.; 26x31 ft.; 1 story; frame; slate roofs; furnace heat; total cost \$10,000; Geo. Wessel, Archt., 2725 Winchester Ave.; construction by owner.

Md., Baltimore—Chas. W. Hurst, 2 E. Lexington St., will erect 9 dwellings and 1 store and dwelling on Virginia Ave. nr. Homer Ave.; cost about \$34,000; 18.6x30 ft.; brick; stone foundation; asbestos roofs; hardwood and pine floors; pipeless furnaces, \$125; F. E. Beall, Archt., 1335 Gilmer St.; C. H. Allen, Supt. of construction. Address Owners Realty Co., 2 E. Lexington St. (Lately noted.)

Md., Baltimore—City and Suburban Realty Co., Harford Rd., will erect 6 dwellings near Walnut and Woodlyn Aves.; cost \$18,000.

Miss., Hattiesburg—J. S. Holleman will erect frame residence at W. Pine St. and 3rd Ave.

Miss., Hattiesburg—Santa Cardimoni will erect 1-story brick residence on Corinne St., between 2nd and 3rd Aves.

Mo., Jefferson City—J. Frank Morris will erect residence in Vista Pl., W. Main St.

N. C., Wilson—W. W. Michaux will erect residence on Warren St.

Okla., Oklahoma City—J. F. White will erect \$10,000 residence and garage at 22 E. 29th St.; frame.

Okla., Tulsa—A. C. Barber will erect \$10,000 bungalow at 2312 E. 13th St.; 28x65 ft.; basement, 25x27 ft.

S. C., Greenville—W. H. Keith plans to organize syndicate of 100 business men to erect 100 dwellings.

Tenn., Memphis—H. Dlugach, 1414 Poplar St., will erect 20 dwellings; cost \$1000 to \$2500 each; 40x40 ft.; frame; composition shingle roof; electric lights; grates and flues; construction by owner.

Tenn., Memphis—H. Dlugach will erect 7 five-room frame cottages; cost \$14,000.

Tenn., Memphis—J. B. Moody will erect 2 five-room brick veneer dwellings and 1 eight-room frame residence; cost \$14,000; hot water and hot air heat, \$1500.

Tex., Corpus Christi—Henry B. Baldwin organized Company with capital stock of \$50,000 to erect dwellings.

Tex., Dallas—Dines Building Co. will erect 2 seven-room brick veneer residences at 708 and 720 Skillman St., cost \$10,000 each.

Tex., Dallas—Security Home Co. will erect 4 five-room frame cottages; cost \$11,400.

Tex., El Paso—R. E. McKee will erect \$15,000 brick residence in Highland Park addition.

Tex., Houston—R. S. Levy will erect \$19,000 residence on Caroline St.; 9 rooms.

Tex., Sour Lake—Phil. Collins will erect residence.

Va., Newport News—G. Rosso, 23rd St. and Washington Ave., will erect \$15,000 residence in Indian River Park; 2 stories; 53x55 ft.; brick; Herbert W. Simpson, Archt., Board of Trade Bldg., Norfolk; construction by owner.

Va., Richmond—Allen, Saville & Sneed, American Natl. Bank Bldg., will erect 4



dwellings; cost \$12,000 to \$15,000 each; 2 stories; 50x25 ft.; frame and stucco; Benton & Benton, Archts., 4 S. 19th St. construction by owners.

Va., Roanoke—S. A. Duerson will erect 3 dwellings, cost \$18,000, and S. A. Duerson and E. R. Kinsey will erect 2 dwellings, cost \$12,000, all in Virginia Heights.

W. Va., Barboursville—Gillila Conard will erect 2-story residence on Barbary St., South Barboursville.

W. Va., Martinsburg—Harry A. Downes, Peoples Trust Bldg., will erect \$10,000 residence; 2 stories; 29x40 ft.; brick; plans by owner.

W. Va., Martinsburg—B. Evard Kepner, Frederick, Md., is preparing plans for 16,000 residence; 2½ stories; 32x45 ft.; brick.

W. Va., Martinsburg—T. W. Martin, King St., will erect \$20,000 residence; 2½ stories; 45x50 ft.; brick veneer; C. E. Kent, Archt., 712 Queen St.

W. Va., Martinsburg—F. C. Thomas, Standard Limestone Co., will erect \$15,000 residence; 2½ stories; 30x42 ft.; brick; B. Evard Kepner, Archt., Frederick, Md.

W. Va., Princeton—Lowery G. Bowling will erect 2-story brick residence in west Princeton.

### Hospitals, Sanitariums, Etc.

Md., Baltimore—University of Maryland, Dr. A. F. Woods, Pres., College Park, will erect first unit of nurses' home for University Hospital at Lombard and Greene Sts.; brick; vapor vacuum heating plant; promenade tile roof; cost about \$100,000; Flournoy & Flournoy, Archts., 306 St. Paul St.; plans ready for estimates in a few days; ultimate plans provide hospital group, including hospital, nurses' home, schools of medicine, dentistry and pharmacy; total cost \$1,250,000.

N. C. Morganton—State Hospital, Dr. Jno. McCampbell, Supt., will receive bids, until Sept. 14, in care Chas. C. Hook, Archt., Charlotte, for erection of receiving building for men; separate bids for heating plant; drawings and specifications at office of Dr. McCampbell, Morganton, and Mr. Hook. (Previously noted.)

Tex., Houston—City, O. F. Holcombe, Mayor, will erect 1-story unit to Tuberculosis Hospital; bids until Sept. 5; W. W. Dowdy, City Archt. (Lately noted.)

Tex., Kerrville—Building Board of American Legion Memorial Sanatorium of Texas, Austin, will receive bids until Sept. 26 to erect 4 two-story ward buildings, 1 one-story ward building, 100,000-gal. water tank and tower (alternates on steel and concrete) with pump and engine, also to drill 8-in. well, 700 ft. deep; lately noted in part; plans, specifications and proposal blanks from Phelps & Dewees, Archts., Gunter Bldg., San Antonio. (See Machinery Wanted—Waterworks; Tank; Pump; Engine; Well.)

Va., Danville—Anti-Tuberculosis League will erect Hilltop Sanatorium; cost \$25,000; 200x40 ft.; 2-story administration building in center, 50x50 ft.; 1-story wings on each side; ordinary construction; composition shingle roof; No. 2 rift pine floors; Heard & Chesterman, Archts.; bids opened Sept. 5. (Lately noted.)

Va., Yorktown—Bureau of Yards and Docks, C. W. Parks, Ch., Navy Dept., Washington, D. C., will receive bids until Sept. 14 to erect dispensary, power house, reservoirs and navy mine depot; specification No. 4498.

W. Va., Weston—Drs. E. T. W. Hall and W. H. Greene will convert building on Main Ave. into hospital; 20 rooms.

### Hotels.

Fla., West Palm Beach—Geo. A. Carson will erect hotel on Lake View Ave.; 4 stories; reinforced concrete and tile; 75 rooms with bath; dining room to seat 175; cost \$100,000. (Previously noted.)

Ga., Dalton—Civitan Club Hotel Comm., H. J. Chrmn., will erect hotel.

La., New Orleans—Orleans Hotel & Realty Co., H. A. Michael, Mgr., Planters Hotel, will expend \$100,000 to remodel old Young Men's Christian Assn. building at 817 St. Charles St. for hotel; 80 guest rooms; brick; steam heat, vacuum system; Otis elevator; bids opened Sept. 15; J. J. La Garde, Archt., 740 Union St.

Tex., Tyler—Tyler Hotel Co., E. P. McKenna, Chrmn., will receive bids until Sept. 15 to erect fireproof hotel; 5 stories; 130x125 ft.; reinforced concrete and brick veneer; concrete floors; plans and specifications at office C. D. Hill & Co., Archts., Sumpter Bldg., Dallas. (Previously noted.)

Va., Winchester—Herman H. and Fred H. Hable Bros. are reported to erect hotel.

Va., Virginia Beach—Princess Anne Hotel & Rest Resort, Incptd. with \$1,000,000 capital; Dr. Hugh Parrish, Portsmouth, temporary Pres.; A. A. Fisher, temporary Treas.; contemplates erecting \$1,000,000 hotel near Lake Station; Hampton Roads Industrial Corp., chartered with \$50,000 capital to dispose of stock; W. J. Shepard, Pres.; D. M. Cheatham, Secy.

### Miscellaneous.

Fla., Gainesville—Clubhouse—Twentieth Century Club will erect \$11,000 building.

Mo., St. Louis—Chapel—Leidner Undertaking Co., 1415-17 N. Market St., will erect \$50,000 chapel; 1 story; 25x100 ft.; fireproof; brick; Wedemeyer & Nelson, Archts., Walnwright Bldg.

Fla., Jacksonville—Fair—Florida State Fair Assn., B. K. Haverford, Secy.-Gen. Mgr., will construct grandstand to seat 4000; also bleachers to accommodate 2000; 370 and 200 ft. long respectively; race track, 80-ft. wide on homestretch, 60 ft. on turns and 50 ft. on back stretch; erect number of stables in units of 12; accommodations for stable managers; construction of track including grading let to W. J. Bryson; Isham Randolph & Co., Conslt. Engrs.

Fla., Pablo Beach—Clubhouse—Jacksonville Automobile Club, Chas. H. Mann, Pres., Mason Hotel, Jacksonville, will erect \$20,000 clubhouse; 2 stories and basement; 75x100 ft.; frame and stucco; shingle roof; wood floors; plaster board; brick fire place; electric lights; bids opened about Dec. 1. (Previously noted.)

Tenn., Memphis—Clubhouse—Catholic Club Building Assn., E. F. Longinotti, Secy., will receive bids until Sept. 30 at office of Regan & Weller and H. J. Kramer, Assn., Archts., 8th floor, Bank of Commerce Bldg., to erect clubhouse; separate bids on general contract, heating, ventilating, plumbing, electrical work, elevators, ice water system and vacuum cleaning system; plans and specifications at office architects.

Tex., Paris—Clubhouse—Lamar Country Club will erect clubhouse; Curtis & Lightfoot, Archts.

Tex., Sherman—Exhibit Hall—Red River Valley Fair Assn., C. A. Shock, Secy., will erect exhibit hall.

### Railway Stations, Sheds, Etc.

Tex., Sweetwater—American Railway Express Co. will erect \$10,000 building; 75x100 ft.

### Schools.

Ala., Decatur—City voted \$100,000 bonds to repair schools and erect high school. Address School Board. (Lately noted.)

Ala., East Lake—State, C. B. Rogers, Chrmn. Bd. of Control and Economy, Montgomery, will erect \$30,000 dormitory for Boys' Industrial School; 153x36 ft.; fireproof wood floors; metal ceilings; steel sash and trim; ventilators; steam heat; electric lights; bids opened. Address Warren & Knight, Archts., 1697 Empire Bldg., Birmingham. (Lately noted.)

Ala., Gadsden—Etowah County Board of Education, E. P. Murphy, Supt., will erect school at Turkeytown; cost \$10,000.

Fla., Coconut Grove—City voted \$30,000 school bonds. Address Board of Public Instruction. (Previously noted.)

Fla., Lemon City—City voted \$60,000 school bonds. Address Board of Public Instruction. (Previously noted.)

Fla., Yulee—Nassau County Board of Public Instruction, O. T. Weaver, Supt., Fernandina, will erect school; bids opened Sept. 7; plans and specifications at office County Supt.

Ga., Talbotton—Talbotton Consolidated School Dist. Trustees will erect school; considering bond election.

La., Denham Springs—Denham Springs School Dist. voted \$10,000 bonds to erect additional building for high school. Address Dist. School Trustees.

La., Hope—Bienville County School Board, Arcadia, will improve school.

Miss., Minter City—Frank Streater Consolidated School Dist. Trustees, L. S. Rogers, Supt. of Education, Greenwood, will receive bids on Sept. 26 to erect brick school; plans and specifications at office Mr. Rogers; Frank R. McGeoy, Archt., Greenwood. (Lately noted.)

Miss., Seminary—Board of School Trustees, G. E. Hemeter, Pres., will receive bids until Sept. 16 to erect school building; plans and specifications at office of Mr. Hemeter.

Mo., Columbia—University of Missouri will erect power house and heating plant; 1 story and basement; fireproof; brick; stone trim; Jas. P. Jameson, Archt., Security Bldg., St. Louis; Prof. Guy D. Newton, Engr., University of Missouri. (Lately noted.)

Mo., Grandview—Board of Education, W. J. King, Secy., will erect \$50,000 school; 2 stories and basement; 54x96 ft.; brick; stone trim; White & Dean, Archts., 720 Paseo St.

N. C., Canton—Board of Trustees, H. D. Seerest, Secy., is receiving bids to erect addition to graded school building, including plumbing, heating and wiring; C. Gadsden Sayre, Archt., Anderson, S. C.; will also erect high school building in spring for which bonds were voted.

N. C., Charlotte—City School Board, H. P. Harding, Secy., plans to erect several schools; will confer with architects Sept. 8 as to qualifications, etc. in order to engage one or more.

N. C., Gastonia—Board of Education, E. E. Rankin, Chrmn., will erect \$550,000 high school; brick and stone; Chas. C. Wynn, Archt., Palmetto Bldg., Columbia, S. C. (Lately noted.)

N. C., Raleigh—North Carolina State College of Agriculture & Engineering, Dr. W. E. Riddick, Pres., will erect Agricultural Extension Building for offices, laboratories and class rooms; 60x185 ft.; reinforced concrete, frame, brick, terra cotta, limestone and hollow fireproof tile; composition roof; composition and granolithic floors; wire glass; metal doors;



steel sash and trim; steam heat from central plant; bids opened Sept. 7; G. Murray Nelson and Thos. W. Cooper, Archts. (Lately noted to open bids Aug. 33.)

N. C., Whiteville—Board of School Trustees plans to erect \$100,000 high school.

S. C., Columbia—Columbia College, J. C. Guilds, Pres., will erect gymnasium; 2 stories and basement; brick and stone; LaFaye & LaFaye, Archts., 1002 Loan Exchange Bank Bldg.

S. C., Cowpens—Cowpens School Dist. No. 50 plans to erect school; election Sept. 6 on \$30,000 bonds; W. B. Potter, M. R. Cash and J. C. Day, Trustees.

S. C., Greenville—Sam Poe School Dist. No. 8-P. A. T. Guy and others, Trustees, will erect schools in Sans Souci and Park Place sections; \$30,000 bonds voted. (Lately noted.)

S. C. Jefferson—Jefferson School Dist. Trustees, C. A. Baker, Chmn., will erect \$10,000 addition to high school lately noted; 70x60 ft.; 2 stories; brick; tin roof; wood floors; plaster board; wire glass; steel sash and trim; ventilators; steam heat; Delco lights. (See Machinery Wanted—Building Material; Brick; Lumber; Millwork.)

S. C., Pomaria—Pomaria School Dist. voted bonds to erect school building. Address County School Board, Newberry.

Tenn., Cleveland—Bradley County School Board, Lee McDaris, Chmn., will erect addition to high school to consist of gymnasium, locker and shower rooms and 5 class rooms; bids until Sept. 8 on building complete, including heating, plumbing and wiring; also separate bids on building, heating and plumbing; plans and specifications at office Clarence T. Jones, Archt., James Bldg., Chattanooga.

Tenn., Memphis—City Board of Education, G. W. Garner, Secy., Lyceum Bldg., will receive separate bids until Sept. 12 on following additions: General contract, heating and plumbing contracts on Leroy Pope School; also general contract, heating and plumbing contracts on St. Paul School; brick, concrete floors; metal doors; ornamental terra cotta; wire glass; ventilators; steam heat; cost \$60,000 each; Regan, Weller & Kramer, Archts., Bank of Commerce Bldg. Address owner.

Tex., Abilene—Board of Education will erect high school; initial unit to have 19 class rooms, auditorium, laboratories, 2 study halls; fireproof; vitrified face brick and structural concrete; accommodate 750 pupils; cost \$30,000; complete structure to be E shape and cost about \$250,000.

Tex., Houston—City, O. F. Holcome, Mayor, is considering election on \$750,000 school bonds.

Tex., Houston—Board of Education will erect 19 temporary 2-room school buildings; 3 at West End High School; 2 each at Montrose, Hyde Park, Helm, Travis, Dow, Gregory and Crawford schools; 1 each at Houston Harbor and Sunset High schools; 20x65 ft.; frame; composition roof; total cost \$38,000; construction by owner under supervision of W. W. Dowdy, City Archt. (Lately noted.)

Tex., Smithville—School Board will remodel main school building; also remodel Convent Building for school; considering election on bonds to erect high school.

Va., Hampton—School Board will erect \$130,000 high school; 2 stories and basement; 140x130 ft.; semi-fireproof; brick; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond.

### Stores.

Ala., Anniston—J. E. Smith, Lake Prov-

dence, La., took over Jefferson Hotel and will erect several stores adjoining.

D. C., Washington—Angeles H. and Wm. H. Bacas will erect 2-story building at 1118 8th St., S. E.; for 2 stores and lunch room on first floor; dwellings above; brick; cost \$34,000.

Fla., Daytona—Ed. H. Armstrong will erect 2 story building; stores on lower floor; 50 rooms above.

Ga., Savannah—Lamas Bros will erect 3-story building on Broughton St.; 30-ft. frontage.

Mo., St. Louis—Sam Hamburg, Jr. and F. L. Cornwall, LaSalle Bldg., will erect building at De Baliviere and Waterman Sts. for 5 stores; 1 story; 75x113 ft.; cost \$100,000; also reported to erect building on Delmar, W. of Clara St., for 28 stores; 1 story; 400x75 ft.; brick; semireproof; stone trim; concrete floors; cost \$560,000; W. S. Frank, Archt.; J. T. Craven, Engr., both 906 Century Bldg. (Lately noted in part.)

Mo., St. Louis—Dr. Walter E. Harral, 6301 Etzel Ave., will erect store and office building; 2 stories; brick; cost \$25,000; W. H. Miller, Archt., Chemical Bldg.

Mo., Hollister—Moore & Toon will erect building; also convert old postoffice building into hardware store.

N. C., Concord—J. A. Cannon will erect 2-story brick building.

N. C., Raleigh—California Fruit Store is reported to erect building.

S. C., Bishopville—McCloud Drug Co. will expend \$40,000 to remodel drug store; 2 stories and basement; brick and frame;

Chas. C. Wilson, Archt., Palmetto Bank Bldg., Columbia.

S. C., Easley—L. R. Henderson will erect 2-story and basement building at Main and Pendleton Sts.; 53-ft. frontage; brick.

Tenn., Maryville—J. C. Bittle will erect building on Washington Ave. for Maryville Produce Co.; brick.

Tex., Clarksville—Maxfield Music Co. will erect brick business building.

Tex., Fort Worth—E. C. Board will erect store at 119 E. 25th St.

Tex., Fort Worth—H. E. Chism will erect store at 15th St. and Lee Ave.

Tex., Fort Worth—Jno. Payne will erect drug store on Bowle St. between Jennings Ave. and May St.

Tex., Houston—City Park Board, Herbert Godwin, Pres., will erect open air theater in Hermann Park to be known as Miller Memorial; 30x52 ft.; limestone; tile roof; masonry and concrete floors; metal partitions; install pipe organ; cost \$40,000; contract let about Oct. 15; Wm. Ward Watkin, Archt., 1110 Scanlan Bldg. (Lately noted.)

Va., Portsmouth—F. Vick will erect store and apartment building at Broad and Third Sts.; 2 stores on first floor; 4 apartments above; brick; A. O. Ferebee, Archt.

### Warehouses.

Ga., Cordele—Williamson-Harris Mfg. Co. will erect storage and office building; 1 story; brick; basement, concrete; cost \$15,000.

Tex., Dallas—W. H. Johnson will erect \$45,000 brick building at 1409-13 Federal St. for auto storage warehouse; 3 stories.

## BUILDING CONTRACTS AWARDED

### Apartment Houses.

D. C., Washington—Louis B. Schneider, care of W. E. Walker, 720 15th St., N. W., will erect \$40,000 apartment house; 4 stories and basement; 32x44 ft.; 4 suites; plans by owner; Meatyard Constr. Co., Contr., Davidson Bldg.

La., New Orleans—Mrs. A. S. Bliss will erect \$25,000 apartment house; frame and stucco; Bishopric stucco base; slate surfaced asphalt shingle roof; pine floors; gas steam heat; H. F. Hinrichs & Son, Archts.-Contrs., 7336 Irma St. (Lately noted under Dwellings.)

### Association and Fraternal.

Ala., Sampson—Sampson Lodge No. 624, A. F. & A. M., and Sampson Chapter No. 137, will erect temple; 2 stories and basement; 50x100 ft.; brick; paper roof; safes; wire glass; electric lights; hot air heat; stores on first floor, lodge room, reception hall and offices above; S. A. Jackson, Secy.; H. J. Dawson Constr. Co., Contr., Birmingham. (Lately noted.)

### City and County.

Mo., Cape Girardeau—Library—City, H. H. Haas, Mayor, will erect \$25,616 library building; J. H. Felt & Co., Archts., Kansas City; McCarthy Constr. Co., Contr., St. Louis. (Previously noted.)

### Bank and Office.

Ark., El Dorado—First Natl. Bank will erect \$60,000 building; 45x90 ft.; concrete foundation; brick; concrete roof; steam and gas heat; electric lights; R. C. Church, Archt., Dallas, Tex.; Christie Dolph Constr. Co., Contr., El Dorado. (Lately noted.)

N. C., Asheville—F. W. Zimmerman & Son will erect \$40,000 store and office building; 50x100 ft.; brick, concrete and steel; asphalt roof; maple and concrete floors; metal ceilings; safes; wire glass; ventilators; steel sash and trim; J. E. Joyner, Contr. (Lately noted.)

N. C., Charlotte—Mutual Building & Loan Assn. will erect 3-story office building on E. 3rd St.; brick; Barrett and tin roof; steam heat; electric lights; Louis H. Asbury, Archt.; Blythe & Isenhour, Contrs. (Lately noted.)

N. C., Raleigh—The Parker-Hunter Realty Co. will erect \$15,000 office building on S. Salisbury St.; 40x75 ft.; brick; metal roof; rift pine floors; steam heat and electric light contracts not let; H. P. S. Keller, Archt.; Hester & McElwee, Contrs. (Lately noted.)

### Churches.

Fla., Daytona—First Baptist Church, Rev. Holmes S. Rightmire, Pastor, will erect \$12,000 addition; 37x40 ft.; wood and stucco; composition roof; wood floors; hot air furnace; electric lights; Bradshaw & Crews, Archts. (Lately noted.)

Ky., Owensboro—First Baptist Church will erect \$60,000 educational building; 130x50 ft.; white brick; Dunham vapor heat; R. H. Hunt Co., Archt., James Bldg., Chattanooga, Tenn.; Sublett & Haesler, Contrs., Owensboro; ultimate plans provide for \$150,000 building to be erected later. (Lately noted.)

La., New Orleans—Franklin-Napoleon M. E. Church, Rev. Philip Deschner, Pastor, 2810 Robert St., will erect \$80,000 building; 2 stories; wood joists and studs; brick, metal



lath and plaster; slate or tile roof; pine floors; auditorium, Sunday school rooms, social rooms, gymnasium, etc.; H. F. Hinrichs & Son, Archts. 7336 Irma St., will supervise construction by owner. (Lately noted.)

Md., Baltimore—Waverly M. E. Church will erect \$40,000 church and Sunday school building at 33rd and Frisby Sts.; 2 stories; brick; 35.8x117.8 ft.; slate roof; steam heat; rolling partitions; Heacock & Hokanson, Bailey Bldg., Philadelphia and Roy G. Pratt, American Bldg., Baltimore, Asso. Archts.; Mason & Fox, Contrs., Law Bldg., Baltimore. (Previous noted.)

Mo., Canton—Christian Church will expend \$30,000 to rebuild structure; W. R. Odor, Contr.

N. C., North Charlotte—Chapel of Hope will erect \$10,000 building at 17th and Caldwell Sts.; W. H. Peeps, Archt.; John P. Little & Son, Contrs., both Charlotte.

N. C., Raeford—Presbyterian Church, J. W. Johnson, Chrmn. Bldg. Comm., will erect building; 3 stories; Greek Doric architecture; brick, stone, concrete and steel; slate roof; hardwood floors; rolling partitions; art glass; electric lights; steam heat; C. Galsden Sayre, Archt., Anderson, S. C.; M. W. Dew, Contr., Raeford.

Tenn., Clarksville—Christian Church, Rev. E. J. Barnett, Pastor, W. B. Dunlap, Chrmn. Bldg. Comm., will erect \$40,000 church and Sunday school building at Academy Ave. and Madison St.; Foster Creighton Co., Contr., Nashville. (Previously noted.)

Tex., Austin—St. Mary's Church will erect \$16,000 parish house at San Jacinto and 10th Sts.; 2 stories and basement; hollow tile and stucco; Giesecke & Harris, Architects; Brydson Bros., Contractors.

Va., Richmond—St. Mark's Episcopal Church, Rev. W. D. Smith, Rector, 2400 Hanover Ave., will erect \$59,300 building; 1 story; 50x120x48 ft.; Baskerville & Lambert, Archts., Travelers Bldg.; Claiborne & Taylor, Contrs., Richmond Trust Bldg. (Lately noted.)

W. Va., Clendenin—Methodist Episcopal Church, South, S. H. Robertson, Chrmn. Bldg. Comm., will erect \$50,000 building; 1 story and basement; 49x100 ft.; brick and stone; plans by Board of Church Extension, 115 S. 4th St., Louisville, Ky.; McDivitt Flemming Co., Contr., Chattanooga, Tenn. (Previously noted.)

W. Va., Franklin—Presbyterian Church, Rev. A. P. Dickson, Pastor, will erect church and Sunday school building; 80x80 ft.; brick; steam heat; electric lights; Stanhope S. Johnson, Archt., Lynchburg, Va.; John F. Wagner, Contr., Port Republic, Va. (Lately noted.)

### City and County.

Fla., Lake Worth—Casino—City will erect \$100,000 casino on Lake Ave.; 187x124 ft.; first floor, concrete mixed with waterproofing; galvanized flashing; 9 store rooms, office, restaurant, 140 lockers and arcade on first floor; 146 lockers, 4 showers and dance hall, 36x100 ft., on second floor; swimming pool, 40x100 ft., with reinforced concrete walls 10 in. thick; 4½ to 8½ ft. high; 180-ft. tunnel, 8 ft. between walls; 300-ft. fishing pier, 10 ft. wide for 200 ft. and 15 ft. wide for 100 ft.; H. C. Daniels, Contr.

Tex., McKinney—Auditorium, etc.—City Comsn. will erect live stock pavilion and auditorium; 80x100 ft.; brick and concrete; concrete floors; metal doors; wire glass; Sparger & Peters, Archts., Bonham; Morgan, Young & Allmon, Contrs., Sherman. (Lately noted.)

### Dwellings.

D. C., Washington—J. D. Ashby, 1222 H. St., N. W., will erect \$12,000 residence and garage; 1½ stories; Robt. J. O'Neill, Archt., 1147 Conn. Ave., N. W.; W. C. & A. N. Miller, Contrs., Union Trust Bldg. (Lately noted.)

D. C., Washington—John Brosman, 12th and 8th Sts., N. W., will erect \$18,000 residence; 3 stories; 28x40 ft.; Geo. T. Santmyer, Archt., Md. Bldg.; E. E. Pean, Contr., 2630 Monroe St., N. E.

D. C., Washington—W. S. Brenizer, 69 Rhode Island Ave., N. W., will erect \$20,000 residence; 31x40 ft.; Hytex brick; Spanish tile roof; oak floors; heating plant, \$1,500; electric lights; Henry L. Brueninger, Archt., Colorado Bldg.; W. F. Brenizer, Contr., 101 New York Ave. (Lately noted.)

D. C., Anacostia—Thompson Bros., 1218 Good Hope Rd., S. E., Washington, will erect 2 dwellings; cost \$13,500 each; 2½ stories 22x33 ft.; pressed brick; J. G. Herbert, Archt.—Contr., 194 Taylor St., S. E., Washington.

Fla., Live Oak—Cyrus W. DeLong will erect number of dwellings; 5, 6 and 7 rooms; frame and brick; composition shingle roofs; pine and hardwood floors; fire places; electric lights; plaster board; plans by Live Oak Realty Co.; Mr. Blackshear, Contr., Live Oak Realty Co. (See Machinery Wanted—Building Material; Brick; Cement; Millwork; Hardware; Paint.)

Fla., Seabreeze—Miss Marguerite Chafee, New York, and others, are reported to erect 30 to 35 bungalows in connection with club colony; Fuquay & Gheen, Archts.—Contrs.; Daytona Beach.

Ga., Savannah—Mrs. Ruth B. Gannon will erect residence in Ardsley Park; Mr. Thweatt, Contr.

Ky., Hopkinsville—Wm. Kimmons will erect \$12,000 residence; 40x65 ft.; 2 stories and basement; brick veneer; asbestos shingle roof; hardwood and concrete floors; interior tile; John T. Waller, Archt.; E. H. Hester, Contr. (Lately noted.)

Ky., Paducah—Fain W. King will erect \$12,000 residence; 35x50 ft.; stucco over frame; wood shingle roof; oak floors; hot water heat, \$1300; city lights; W. E. Gore, Archt.; Gus. Lockwood, Contr. (Lately noted.)

La., New Orleans—Jos. D. Larkin and Conservative Homestead Assn. will erect \$10,000 residence at Napoleon ave. and Gen. Pershing St.; 2 stories; Connell & Moore, Contrs.

La., New Orleans—Suburban Building & Loan Assn. will erect 2 double residences at Roman and Derbigny Sts.; cost \$17,000; A. C. Babin & Sons, Contrs.

Md., Baltimore—John T. Galvin, Jr., 301 E. Falls Ave., will erect \$10,000 residence at Cedarcroft and Sycamore Rds.; 40x30.10 ft.; slate roof; Walton Co., Inc., Archt.—Contr., Hollen Rd.

Tex., Dallas—H. L. Bromberg, Western Indemnity Bldg., will erect \$16,500 residence; 52x42 ft.; brick veneer; slate roof; hardwood, tile and cement floors; hot water heat, \$1400; ventilators; Bertram C. Hill, Archt., Interurban Bldg.; Albert Dines, Contr., Dallas Trust & Savings Bank. (Lately noted.)

Va., Norfolk—John P. Urganu will erect \$10,500 residence in Algonquin Park; 2 stories, frame; J. W. Saunders, Contr.

Va., Norfolk—E. K. Wilson & Co., 1011 Duke St., will erect 2 dwellings; cost \$15,000; 1 story; 28x45 ft.; P. B. Moser, Archt., Law Bldg.; Griffith Bros., Contrs., 44th St.

Va., Richmond—R. M. Anderson & Co.,

Lyric Bldg., have contract for \$15,000 residence; 3 stories; 27x57 ft.; plans by owner.

### Hospitals, Sanitariums, Etc.

Ark., Little Rock—State Board of Control will erect \$10,000 addition to Confederate Home hospital; 1 story; brick; slate roof; pine floors; steam heat, \$5000; electric lights; Frank M. Blaisdell, Archt.; Matt Bush & Bros., Contrs. (Lately noted.)

Miss., Sanatorium—State Board Improvement Comsn., Theo. C. Link, Suprv. Archt. and Director of Public Works, Jackson, will erect nurses' home, infirmary, service building, recreation building, power house and laundry building; cost \$544,030; Bem Price, Archt., Jefferson County Bank Bldg.; Smith Co., Contr., both Birmingham, Ala. (Lately noted.)

Okl., Oklahoma City—Soldiers' Relief Comsn., H. B. Fell, Chrmn., Room 544 State House, will erect administration building at State Hospital; cost \$68,925; Hawk & Parr, Archts.; W. S. Bellows, Contr. (Lately noted.)

Tex., Kerrville—Building Board of American Legion Memorial Sanatorium, Austin, will erect administration building, 2 ward buildings, helps' dormitory, superintendent's home and warehouse; cost \$175,000; Phelps & Dewees, Archts., 718-22 Gunter Bldg.; Walsh & Burney, Contrs., both San Antonio. (Lately noted.)

Va., Charlottesville—State Health Comsn., Richmond, will erect convalescent cottage, administration building and infirmary at Blue Ridge Sanatorium; 2 stories and basement; 225x40 ft.; Chas. M. Robinson, Archt., Times Dispatch Bldg.; J. T. Nuckols, Contr., 1102 E. Main St., both Richmond. (Previously noted.)

### Hotels.

Ala., Birmingham—Mrs. Emmett Collins will erect Windermere Hotel, 4th Ave. and 24th St.; 55x140 ft. with 40x40 ft. ell; 3 stories; brick, hollow fireproof and interior tile; tar and gravel roof; cement, tile and yellow pine floors; metal ceilings and doors; steel sash and trim; ventilators; 100 guest rooms equipped with electric bells, telephones and running water; 7 stores on lower floor; steam heat; separate boiler for each store; electric passenger and freight elevators; cost \$73,600; Wm. Leslie Welton, Archt.; Benz Constr. Co., Contr. (Lately noted.)

Fla., Fort Lauderdale—Wm. Bivans will erect 3-story hotel on Brickell Ave.; 50x65 ft.; 35 to 40 rooms; concrete and stucco; Jno. Olsson, Contr. (Lately noted.)

N. C., Morganton—Board of Directors, W. C. Erwin, Chrmn., will erect hotel; 60 rooms; Louis H. Asbury, Archt.; Goode Construction Co., Contr., both Charlotte; J. H. Giles, and others, Building Comm.

Va., Norfolk—Clubhouse—Lynnhaven Country Club will erect \$45,200 clubhouse; 72x180 ft.; brick and frame; slate roof; cement and wood floors; steam heat, \$7000; Calrow, Wrenn & Tazewell, Archts.; Seay Bros., Contrs. (Lately noted.)

### Miscellaneous.

N. C., Winston-Salem—Home—Methodist Children's Home Board of Trustees will erect Tise building; fireproof; brick; accommodate 50; J. L. Crouse, Contr., Greensboro.

### Railway Stations, Sheds, Etc.

Ky., Covington—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville,



will erect passenger and freight station; 2 stories and basement; cost \$95,000; J. C. Haly, Supervising Archt., Louisville; J. J. Craig, Contr., 20 N. 9th St., Covington. (Previously noted.)

S. C., Bishopville—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect \$30,000 freight station; 36x188 ft.; 363-ft. platform; brick and concrete; Johns-Manville roof; asphalt block floors; electric lights; A. W. Griffin, Archt.; R. N. McEachren, Contr., Douglas, Ga.; all material purchased.

### Schools.

Ala., Bessemer—Board of Education will erect 2-story addition to school; brick; composition roof; plaster board; metal doors; rolling partitions; concrete and wood floors; cost \$15,000; heating, \$1900; lighting, \$250; D. O. Whildin, Archt., Birmingham. Address Inglenook Constr. Co., Contr., Birmingham.

Ala., Pine Hill—Board of Education will erect 2-story brick school; contract let.

Ala., Weaver—School Board will erect 5-room school; Seaman Lumber Co., Contr., Jacksonville.

La., Liberty Hill—Bienville County School Board, Arcadia, will erect school; contract let.

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will install plumbing in schools as follows: Roland Park, Brooklyn, Orangeville, Hillsdale, Nos. 31, 34, 35, 67, 68 and 115; total cost \$59,621; Pigts. Distler & Stringer, Contrs., 216 N. Calvert St.; Henry Adams, Calvert Bldg.; C. L. Reeder, 913 N. Charles St.; Jas. Posey, 11 E. Lexington St.; Hermann Elser, 11 E. Lexington St., Engrs. (Lately noted.)

Md., Catonsville—St. Charles' College will erect refectory and library building; 50x144 ft.; 3 stories; Port Deposit granite; also convent building; 48x92 ft.; 5 stories; cost \$180,000; Wm. W. Emmart, Archt., Union Trust Bldg.; Jas. J. O'Connor, Contr., Kniekerbocker Bldg., both Baltimore; also complete administration building; cost about \$175,000. (Previously noted.)

Mo., Marston—Board of Education will erect high school; cost \$75,000; J. W. Taylor, Contr., Kennett.

N. C., Smithfield—Smithfield Graded School Dist. Trustees, F. H. Brooks, Prest., will erect school; Chas. C. Hook, Archt., Charlotte; Kennon & Thompson, Contrs., Raleigh.

S. C., Charleston—Charleston High School Trustees, M. B. Haselden, Chrmn., will erect high school at 147-51 Rutledge Ave. lately noted; 126x118 ft.; 3 stories; semi-fireproof;

Barrett specification roof; wood, tile and concrete floors; plaster board; metal doors; wire glass; ventilators; steel sash and trim; Benson & Barbot, Archts., 26 Broad St., Simons-Mayrant Co., contr. at \$124,879; Geo. F. Musladin, plumbing, \$6,630; Louis D. Rubin Electric Co., clock system, \$2,079; inter-room telephone system and construction of moving picture theater both also let to Simons-Mayrant Co. at \$1,150 and \$550. (See Machinery Wanted—Heating Plant.)

S. C., Summerland—Summerland College, P. E. Monroe, Prest., will erect 3-story dormitory; 209x37 ft.; brick and hollow fireproof tile; wood joists and partitions; interior tile; Johns-Manville 4-ply built-up roof; wood and concrete floors; steam heat, \$5,200; electric lights, \$1100; cost \$68,840; Scroggs & Ewing, Archts., Lamar Bldg., Augusta, Ga. Address General Building Co., Contr., 1221 Washington St., Columbia, S. C. (Lately noted.)

Tenn., Nashville—Davidson County School Board erect 1-story grade school in county; Dougherty & Gardener, Archts., 900 Stahlman Bldg.; F. E. Causey, Contr., Franklin Rd.

Tex., Plainview—School Board will erect brick and tile building in North Plainview; J. B. Maxey, Contr.; J. H. Hamon, Amarillo, heating; also erect additions to Central and Lamar ward schools; L. D. Harrison, Contr.

Tex., San Antonio—St. Cecilia Parish School, Rev. M. S. Garrigas, Supt., will erect school and church; 110x55 ft., with 36x75 ft. extension; concrete and brick; tin roof; wood floors; Emmett Jackson, Archt., Chandler Bldg.; E. J. Walsh, Contr. (Lately noted.)

Va., Newport News—City, W. L. Tabb, Clk., will erect \$10,000 addition to Huntington High School; 2 stories; 40x50 ft.; A. B. Williams, Archt., Powell Bldg.; G. B. Lipscomb, Contr.

### Stores.

Ala., Gadsden—McClellan's Stores Co. will expend \$20,000 to remodel Bellenger Building on Broad St.; install store front, etc.; C. B. Smith, Contr.

Fla., Jacksonville—Mangels-Kirby Co. will erect 2 story brick building at Hogan and Carolina Sts.; cost \$50,000; H. F. McArden, Contr.

Fla., St. Cloud—W. H. Milisom will erect business building on New York Ave.; Gale White, Contr.

Mo., Kansas City—Wm. Rock, 910 Grand Ave., will remodel and erect 2 story addition to store; 48x116 ft.; Barbot & Gornall, Archts., 507 Republic Bldg.; Harvey Stiver, Contr., 402 Shukert Bldg.

Ky., Clinton—W. R. Hutchenson will erect \$25,000 store; 2 stories and basement; 48x100 ft.; G. T. Smith, Jr., Archt., Truehear Bldg., Paducah; Jno. A. Harpole, Contr., Clinton.

Ky., Louisville—Abe C. Levi, 4th St. nr. Walnut St., will expend \$45,000 to remodel and erect addition to store; Joseph & Joseph, Archts., Atherton Bldg.; Platoff & Busch, Contrs., 129 Liberty St.

N. C., Asheville—J. Dan Earle will erect 3-story and basement brick building at Walnut St. and Broadway; 63x92 ft.; cost \$30,000; T. E. Davis, Archt.; J. B. Miller, Contr.

N. C., Statesville—D. F. Jenkins will erect 2-story and basement store; 48x100 ft.; cost \$30,000; L. H. Asbury, Archt.; J. A. Gardner Contr., both Charlotte. (Previously noted.)

Tenn., Trezevant—Jeff J. Blanks will erect business block on Main St.; brick; Carter & Cresswell, Contrs.

Tex., Abilene—J. M. and O. E. Radford will erect 2-story brick business building at 8. Second and Oak Sts.; 70x120 ft.; second floor for hotel or rooming house and lower floor, filling station, garage and 2 storerooms; cost \$55,000 to \$60,000; contract let.

Va., Berkley (P. O. Norfolk) — Sam Levitin will erect 2-story building at Liberty and 11th Sts. for 5 stores; brick; cost \$30,000; Glick & Goldberg, Contrs.

W. Va., Fairmont—Heinz & Co. will erect business building at Jackson and Madison Sts.; Concrete Steel Bridge Co., Contr., Clarksburg.

### Theaters.

Tex., San Antonio—Santikos & Morosi will expend \$30,000 to remodel Rialto Theater on E. Houston St., extend 14ft. and erect 2nd story for balcony, enlarge lobby, decorate interior, etc.; Francis S. Ankrom, Archt.; Walsh & Burney, Contrs.

### Warehouses.

Mo., St. Louis—Frank Binz, 3434 Kosciusko Ave., will erect office and storage building; 1 story and basement; 80x120 ft.; brick and concrete; cost \$35,000; C. C. Krause, Archt., 3857 Chateau St., H. O. Hirsch & Co., Contrs., Wainwright Bldg.; W. T. McCormick, 1138 Union Ave., plumbing; Guarantee Electric Co., 1305 Pine St., electric wiring. (Lately noted.)

Va., Smithfield—Smithfield, Newport News & Norfolk Steamship Co. will erect pier and warehouse to replace burned structure lately noted; Harwood & Moss, Contrs., Newport News.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Artists' Supplies.**—Success Art Co., C. A. Horde, Prest.-Gen. Mgr., Bristol, Va.—Commercial portrait artist and artists' supplies.

**Asphalt Paving Plant.**—Blythe Bros. Co., Charlotte N. C.—Prices on asphalt paving plant.

**Barrels (Wooden), Etc.**—Cumberland County Refinery, Burksville, Ky.—Prices on wooden barrels for kerosene.

**Boards (Cork).**—R. K. Stewart & Son, High Point, N. C.—Names and addresses mfrs. of cork board.

**Boiler Plant Equipment.**—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—Bids until Oct. 5, boiler plant equipment at hospital reservation, San Diego; specification 4494.

**Boiler.**—Norton Broadway Machinery Co., 238 Broadway, Cincinnati, O.—Portable fire box boiler, 100 H. P., good for 40 or 50 lbs. steam pressure, for use in Cincinnati.

**Boilers.**—Seminole Dairy & Supply Co., 521 W. Forsyth St., Jacksonville, Fla.—To correspond with mfrs. of standard boilers; near enough for water shipment to Jacksonville.

**Boiler.**—Gulf States Portland Cement Co., Demopolis, Ala.—300 H. P. water tube boiler in good condition, either Wickes or Cooks; state price, etc.

**Boiler (Return Tubular).**—Machinery Clearing House, 424 Board of Trade, Indianapolis, Ind.—54 in. by 16 ft. or 60 in. by 16 ft. Butt strapped return tubular boiler, to carry 110

lbs. or over; nearest point obtainable from Indianapolis.

**Bonnet Mill.**—Warner, Moore & Co., Richmond, Va.—18-in. Bonnet mill; state age, condition, location and price.

**Boring Mill.**—Norton-Broadway Machinery Co., 238 Broadway, Cincinnati, O.—10-in. extended to 16 ft. old-style horizontal boring mill; either 1 or 2 heads.

**Bottle Washing Machinery.**—R. S. Lazenby, Prest., Circle "A" Corp. of America, Waco, Tex.—Bottle washing machinery for carbonated beverages; daily output 2,000 cases.

**Brick.**—Cyrus W. DeLong, Live Oak, Fla.—See Building Material.

**Brick.**—C. A. Baker, Chrmn. Board of School

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Trustees, Jefferson, S. C.—(See Building Material.)

**Bridge Construction.**—City, A. P. Kastler, Sr., Clk., Valparaiso, Fla.—Bids until Sept. 15 to erect 734-ft., 50-span pile bent bridge over Sunset Bay; plans, etc., on file; Laurence H. McCullough, Engr.

**Bridge Construction.**—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Bids until Sept. 14 to complete Philadelphia road bridge and approaches over Herring Run; plans, etc., on file.

**Bridge Construction.**—City, Mat Miser, Commr. Streets and Sewers, Huntington, W. Va.—Bids until Sept. 13 to build truss or piling bridge across Four Pole Creek; 703-ft.; 71,720 B. M. girders, caps, posts, etc.; plans, etc., with A. B. Maupin, City Engr.

**Bridge Construction.**—Madison County, A. H. Menefee, County Judge, Madisonville, Tex.—Bids until Sept. 12 to construct 988 lin. ft. creosoted timber bridges; 150,000 ft. lumber; 6,500 lin. ft. piling; plans, etc., from S. C. McCarthy, County Engr., Madisonville, and State Highway Dept., Austin, Tex.

**Bridge Construction.**—Jefferson County, Board of Revenue, Birmingham, Ala.—Bids until Sept. 30 to construct reinforced concrete bridge on Bankhead highway; double 25-ft. reinforced concrete girder; plans, etc., with C. J. Rogers, County Highway Engr.

**Bridge Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until Sept. 10 to construct 20-ft. reinforced concrete slab span bridge on State road from Memphis eastward and westward; 2 reinforced concrete abutments; cost \$4,143.40; State Aid Project 20.51, Scotland County; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

**Bridge Construction.**—Carroll County Comms., Carrollton, Mo.—Bids opened Sept. 6 to erect 24-ft. beam, 16-ft. beam and 40-ft. steel truss bridge; plans, etc., with D. W. Frush, Highway Engr.

**Broom Making Machinery.**—E. L. Gerard, 303 South St., Grenada, Miss.—Names and addresses mfrs. of broom making mchy., small and medium size; about 2-man outfit.

**Broom Making Materials.**—E. L. Gerard, 303 South St., Grenada, Miss.—Prices on stock for mfrs. of brooms, including thread, handles and straw.

**Building Material.**—Cyrus W. DeLong, Live Oak, Fla.—Brick, plaster, cement, lime, hardwood finish and composition shingles for dwellings.

**Building Material.**—M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md.—Sub-bids and estimates until Sept. 10 for power house, dispensary, reservoirs and navy mine depot at Yorktown, Va.; specification No. 4498.

**Building Material.**—M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md.—Sub-bids and estimates until Sept. 2 on \$150,000 hospital at Salisbury, Md.; 3 stories; 100x40 ft.

**Building Material.**—C. A. Baker, Chrmn. Board of School Trustees, Jefferson, S. C.—Brick and rough lumber for school addition; 70x60 ft.; 2 stories.

**Building Supplies.**—E. Darden Borders, Prest., Hightower Lumber & Supply Co., Cedartown, Ga.—To correspond with mfrs. of and dealers in various lines of building supplies; view to representation.

**Cable.**—Chief Signal Office, U. S. Army, Washington, D. C.—Bids until Sept. 19 to furnish 17,152 ft. double armored cable, type 327; circular 8451-ICP; information on application.

**Canal.**—Little Opossum Bayou Drainage Dist. Comms., J. W. Mack, Secy., Marks, Miss.—Bids until Sept. 10 to construct canal containing 296,000 cu. yds.; build dam across

Little Opossum Bayou near Longstreet, containing 1,000 cu. yds.; W. R. Wallis, Dist. Engr.

**Canning Equipment.**—E. C. Crane, Room 919, 1270 Broadway, New York.—Used canning equipment for canning oysters, clams and other sea food.

**Carbonating Machinery.**—R. S. Lazenby, Prest., Circle "A" Corp. of America, Waco, Tex.—Machinery to carbonate beverages; daily output 2,000 cases.

**Cement.**—Cyrus W. DeLong, Live Oak, Fla.—See Building Material.

**Cement.**—F. M. Brown, Willowbrook, P. O. Blanchard, La.—To correspond with mfrs. cement, etc., used in repair of casings and tubes.

**Cement (Portland).**—U. S. Engineer Office, Rock Island, Ill.—Bids until Sept. 3 to furnish 18,000 bbls. American Portland cement; information on application.

**Cement.**—A. B. Copenhaver, Contr., Ashboro, N. C.—Prices on cement.

**Concrete Block Machinery.**—M. Ludasy, 842½ Fourth Ave., Huntington, W. Va.—Names and addresses of mfrs. also catalogs of mchy. to make concrete blocks and bricks for building purposes.

**Concrete Machinery and Molds.**—J. M. Perkins, Box 274, Valdosta, Ga.—Catalogs and prices on mchy. and forms for concrete building stone and art products.

**Concrete Mixer.**—Lawler & Cartledge, Dillon, S. C.—Second-hand ¼ yd. concrete mixer, complete with pan; state price, description, etc.

**Copper (Sheet).**—J. F. Wagner's Sons Co., 1147 Seventh St., Louisville, Ky.—Large lot sheet copper, both soft and cold rolled, contract to cover with guarantee against decline or advance until shipment.

**Crane (Overhead).**—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—Bids until Sept. 14 to furnish 10 ton hand operated overhead crane for naval mine depot at Yorktown, Va.; information on application.

**Crusher (Roller).**—Wm. Hite, Mgr., Ideal Bauxite & Mining Co., Ellaville, Ga.—Prices on complete information on corrugated roller crusher for bauxite.

**Crushers.**—See Road Building Equipment.

**Crushers (Rock).**—(See Road Building Machinery.)

**Dairy Equipment.**—Dept. of Interior, Washington, D. C.—Bids until Sept. 14 to furnish dairy equipment for St. Elizabeth's Hospital, Washington; plans with chief clerk of dept.

**Ditch Construction.**—Davies County Drainage Dist., R. H. Ford, Commr., 220½ Frederica St., Owensboro, Ky.—Bids until Sept. 10 to construct ditch, 82,224 cu. yds. earth excavation, clearing 14½ acres of right of way; erect 20 and 22 ft. span wooden bridges.

**Distilling Machinery (Water).**—R. S. Lazenby, Prest., Circle "A" Corp. of America, Waco, Tex.—Water distilling machinery for carbonated beverages; daily output 2,000 cases.

**Dust Collector.**—Warner Moore & Co., Richmond, Va.—No. 8 and No. 10 cyclone dust collector; state age, condition, location and best price.

**Electric Current.**—Board of Awards, Wm. H. Broening, Mayor, Md.—Bids until Sept. 21 to furnish electric current for use in public buildings within City of Baltimore, and in squares, streets, avenues and alleys; John J. Hanson, Supt. of Lamps & Lighting.

**Electric Plant.**—Bureau of Yards and Docks,

Navy Dept., Washington, D. C.—Bids until Sept. 14 to construct power house at Yorktown, Va.; plans, etc., from M. A. Long Co., Engr., 1523 Munsey Bldg., Baltimore, Md.

**Electrical Supplies.**—Frankford Arsenal, Philadelphia, Pa.—Bids until Sept. 12 to furnish 6 panel boards, 18 circuits, 318 reflectors, 258 galvanized pipe stems; 365 insulated fixture studs, 203 shock absorbers, 280 insulated brass canopies, 148 condulets, 30 conduit covers, 8 switches, 144 condulets and olgross machine screws; information with commanding officer.

**Elevator (Portable, Hand).**—Gilbreath Bros. Warehouse, Guntersville, Ala.—Portable hand elevator; to double deck cotton.

**Engine.**—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—See Waterworks.

**Engines (Oil).**—Town Gordon McLaurin, Mayor, Dillon, S. C. Prices on two 200-H. P. and alternate prices on 200 and 300-H. P. semi-Diesel type oil engines; plans, etc.; from Ryan Engineering Co., Engr., Arcade Bldg., Columbia, S. C.

**Engines (Oil).**—Public Works Comn., Dillon, S. C., Gordon McLaurin, Mayor.—Prices on two 200 H. P. and alternate prices on one 200 and one 300 H. P. semi-Diesel type oil engines; specifications with Ryan Engineering Co., Arcade Bldg. Columbia, S. C.

**Excavating and Conveying Machinery.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Excavating and conveying machinery to load gravel at pit and unload from cars.

**Frames, etc.**—Success Art Co., C. A. Horde, Prest.-Gen. Mgr., Bristol, Va.—Oval and round frames for portraits, etc.; also convex glass.

**Generator.**—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers' prices on 30 or 40 K. W., 250 volts B. C. generator; second-hand; immediate delivery.

**Generator.**—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers' prices on new or rebuilt 30 or 40 K. W. 250 volts B. C. generator; immediate delivery; good condition.

**Generators.**—Plain Dealing Light & Power Co., M. S. Bolinger, Prest., Plain Dealing, La.—15 and 30 Kw. D. C. 220 generators; good second-hand machinery.

**Glass (Convex).**—(See Frames etc.)

**Graders.**—(See Road Building Machinery.)

**Hammer (Power).**—Norton-Broadway Machinery Co., 238 Broadway, Cincinnati, O.—500-lb. belted power hammer.

**Hardware.**—Cyrus W. DeLong, Live Oak, Fla.—Hardware for dwellings.

**Handles (Broom).**—(See Broommaking Materials.)

**Heating Plant.**—High School Board of Trustees, Jos. C. Barbot, Secy., City Hall, Charleston, S. C.—Bids until Sept. 14 to install low pressure steam heat in high school at 147-51 Rutledge Ave.; 126x118 ft.; 3 stories; plans and specifications at office Benson & Barbot, Archts., 26 Broad St., Charleston.

**Heating Plant.**—City of Baltimore, Md., Wm. F. Broening, Mayor.—Bids until Sept. 7 to install heating plant in city jail; H. G. Perring, Chief Engr.; Richard Gwinn, Register.

**Ice Machine.**—Certain Thyson Milk Co., Jacksonville, Fla.—Second-hand ice machine, 30 ton capacity, vertical inclosed type, motor driven, with or without motor, 3 phase, 60 cycle, 220 volts together with complete high side for 35 ton shell type brine cooler.

**Ice Plant.**—M. Ludasy, 842½ Fourth Ave.,



Huntington, W. Va.—Data, catalogs and prices on 10 to 15-ton ice plant; also data regarding mfrs. of ice.

**Iron Fixtures (Ornamental).**—Murray Construction Co., Holston National Bank Bldg., Knoxville, Tenn.—To correspond with dealers in or mfrs. of ornamental iron fixtures, such as andirons, iron fire place lamps, porch lights and scroll gradings.

**Lamps (Street).**—Board of Awards, Wm. H. Broening, Mayor, Baltimore, Md.—Bids until Sept. 21 to furnish, operate and maintain electric arc and incandescent lamps within City of Baltimore; John J. Hanson, Supt. of Lamps and Lighting.

**Levee.**—Atchafalaya Drainage & Levee Dist., R. L. Campbell, Secy., Silver City, Miss.—Bids until Sept. 13 to construct and enlarge levees in district; approximately 400,000 yds.; plans with Lamar Fontaine, Jr., Engr., Yazoo City, Miss.

**Locomotives.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Industrial locomotives.

**Lumber, Etc.**—City of Valparaiso, Fla., A. P. Kastler, Sr., Clk.—Bids until Sept. 25 to furnish 4,100 ft. juniper or cypress piling, 10 to 50 ft. lengths; 81,000 ft. yellow pine heart lumber; 7,900 lbs. O. G. washers; 1472 lbs. cut nails; Laurence H. McCullough, Engr., Valparaiso, Fla., and Kingtree, S. C.

**Mattress Making Machinery.**—E. L. Gerard, 303 South St., Grenada, Miss.—Names and addresses mfrs. of mchy. to make cotton mattresses; small plant.

**Meters (Water).**—J. H. Steger, Mullens, W. Va.—Bids opened in about 30 days on water meters.

**Meters (Oil).**—Cumberland County Refinery, Burkesville, Ky.—Prices on oil meters.

**Millwork.**—C. A. Baker, Chrmn., Board of School Trustees, Jefferson, S. C.—Sash and doors for school addition; 70x60 ft.; 2 stories.

**Millwork.**—Cyrus W. DeLong, Live Oak, Fla.—Millwork for dwellings.

**Miscellaneous Supplies.**—Norfolk & Western Ry. Co., J. H. Clement, Purchasing Agt., Room 241, N. & W. Ry. Co. Office Bldg., Roanoke, Va.—Bids until Sept. 14: double coil steel springs; welding steel; wire fencing; wire nails; repairs to electrical apparatus.

**Motor Trucks, Etc.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Motor trucks and motor truck trailers.

**Motors (Electric).**—City, J. R. Eaves, Mayor, Comanche, Tex.—Prices on electric motors.

**Paint.**—Cyrus W. DeLong, Live Oak, Fla.—Paints for dwellings.

**Paving.**—City, D. H. Hamrick, Clk., Clarksburg W. Va.—Bids until Sept. 9 to construct 4,700 sq. yds. vitrified brick paving on concrete base; 1,800 ft. concrete curb; specifications from City Mgr.

**Paving.**—Dist. Commrs., 509 Dist. Bldg., Washington, D. C.—Bids until Sept. 12 to pave and resurface streets and avenues with sheet asphalt; information from Room 427 Dist. Bldg.; Charles W. Kutz, Commr.

**Paving.**—City, J. C. Flanagan, Secy., Treas., Shreveport, La.—Bids until Sept. 13 to pave Wall St. from Gilbert to Marshall; asphaltic concrete; Battle St. from Spring to Commerce St.; brick; plans, etc., on file with City Engr.

**Paving.**—City, Paul Gilvin, Street Commr., Fort Worth, Tex.—Bids opened to improve Galveston Ave. from Rosedale St. to Magnolia Ave.; 2,795 sq. yds. pavement; 1,728 lin. ft. curb; 3,450 sq. ft. gutter, etc.; D. L. Lewis, City Engr.

**Paving.**—City, L. A. Edwards, Clk., St. Albans, W. Va.—Bids until Sept. 23 to pave

2,400 sq. yds. street; 1,500 lin. ft. curb and gutter, etc.; plans, etc.; on file, and with Oliver & Maupin, Huntington, W. Va.

**Paving Blocks.**—F. E. Ladd, Fort Payne, Ala.—Names and addresses mfrs. of paving blocks and bricks made from crushed limestone and asphaltum.

**Peanut Oil Machinery.**—J. K. Smith, De-Ridder, La.—Names and addresses mfrs. of peanut oil mchy.

**Piling (Steel).**—E. H. Wilson & Co., Commercial Trust Bldg., Philadelphia, Pa.—30 ft. Lackawanna 13 $\frac{3}{4}$  or 14-in. steel sheet piling for 300 lin. ft. of cofferdam; material located in South preferred.

**Pipe (Cast Iron).**—Justin Matthews, Little Rock, Ark.—20,000 ft. of 4, 6 and 8-in. cast iron pipe.

**Pipe, Etc.**—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until Sept. 9 to deliver iron pipe, brass bars, and steel pipe to Navy Yard, Washington.

**Planer (Power).**—Orleans Steel Products Co., 1025 Bienville St., New Orleans, La.—Used, late model power planer, single or double head, 30x30x10-ft. strokes.

**Plastering.**—Eubank & Caldwell, 6 Kirk Ave., S. W., Roanoke, Va.—Quotations from plastering contractors on plastering and stucco work; prices for labor per sq. yd., also labor and material per yd.

**Plastering Materials.**—Eubank & Caldwell, 6 Kirk Ave., S. W., Roanoke, Va.—Prices on all classes of plastering materials F. O. B. Roanoke and F. O. B. Blacksburg, Va.

**Plate Rolls.**—Norton-Broadway Machinery Co., 238 Broadway, Cincinnati, O.—One set 10 to 12-in. boiler makers plate rolls.

**Portraits.**—Success Art Co., C. A. Horde, Prest.-Gen. Mgr., Bristol, Va.—Commercial portraits and prints.

**Power-Plant Equipment.**—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—Bids until Sept. 14 for power-plant equipment at naval mine depot, Yorktown, Va.; plans on file; specification 4508.

**Printing Presses, etc.**—Florida National Publishing Co., Orlando, Fla.—Bids until Sept. 6 to install printing presses and linotype machines.

**Pump (Triplex).**—Alex. M. Robinson, Georgetown, Ky.—Dealers price triplex to 1900 G. P. M. against 1101 lb. back pressure; pump, 800 to 1000 G. P. M. against 1101 lb. back pressure; state condition, location, price and delivery.

**Pump.**—Building Board of American Legion Memorial Sanatorium of Texas, Austin Tex.—See Waterworks.

**Pumps.**—Norton-Broadway Machinery Co., 238 Broadway, Cincinnati, O.—Two belt driven 750 gal. per min. underwriters fire pumps.

**Pumps.**—City, J. A. Eaves, Mayor, Comanche, Tex.—Prices on pumps.

**Pumps.**—J. H. Steger, Mullens, W. Va.—Bids opened in about 30 days on 500 G. P. M. air lift and centrifugal pumps.

**Refrigerating Machinery.**—R. S. Lazenby, Prest., Circle "A" Corp. of America, Waco, Tex.—Refrigerating machinery for carbonated beverages; daily output 2,000 cases.

**Refrigerating Plant.**—Supv. Archt's Office, Washington, D. C.—Bids until Sept. 21, refrigerating plant in mess hall and kitchen building at U. S. Public Health Service Sanatorium, Dawson Springs, Ky.; plans on file.

**Refrigerating Plant.**—Blalock Fruit & Produce Co., 1322 E. Cary St., Richmond, Va.—Names and addresses mfrs. of small refrigerating plant.

**Road Building Equipment.**—Lee J. Smith Construction Co., Charlotte, N. C.—Prices on steam shovels, rock crushers and culverts.

**Road Construction.**—City, Mut Miser, Commr. Streets and Sewers, Huntington, W. Va.—Bids until Sept. 13 to grade and drain road through new addition of Ritter Park; 5,000 cu. yds. excavation, etc.; plans, etc.

**Road Construction.**—Tangipahoa Parish Police Jury, Supvg. Board, Road Dist. No. 5, Amite, La.—Bids until Sept. 27 to construct 3.1 mi. Amite West road in Road Dist. No. 5; plans, etc., from J. M. Fourmy, Engr., Hammond, La.

**Road Construction.**—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Sept. 13 to construct section of State highway from St. Anthony to Motters Station; 1.83 mi.; concrete; Frederick County, Contract F-40; specifications furnished by Comsn.

**Road Construction.**—Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until Sept. 12 to construct without gravel surfacing 11.73 mi. Bunkie, Long Bridge highway, Avoyelles Parish; information, etc., on file.

**Road Building Machinery.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Rollers, graders scrapers, scarifiers, drags, tractors, steam shovels, rock crushers, culverts and road forms.

**Road Construction.**—North Carolina State Highway Comsn., Dist. Office, Charlotte, N. C.—Bids until Sept. 10 to construct 7.88 mi. State highway in Iredell county; 83,210 sq. yds. one course plain cement concrete, reinforced concrete or concrete base and header course pavement; 78,590 sq. yds. Topeka sheet asphalt or Natural rock asphalt surfacing; specifications, etc., from State Highway Comsn., Raleigh, N. C.

**Road Construction.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Bids in October to construct 25 mi. road; cost \$200,000; B. W. Baker, County Engr., Big Spring, Tex.

**Road Construction.**—Hill County, Marion Clyette, County Auditor, Hillsboro, Tex.—Bids opened to complete 6.51 mi. Colorado-to-Gulf, 7.15 mi. King of Trails north and 12.3 mi. King of Trails south highways; plans, etc., from T. H. Webb, Engr.

**Road Construction.**—Noxubee County, W. B. Butler, Road Commr., Macon, Miss.—Bids until Sept. 17 to grade Archer Lane road; plans, etc., on file with Chancery Clk.

**Road Construction.**—State Highway & Dept., Jefferson City, Mo.—Bids until Sept. 10 to construct 2.90 mi. State road from Memphis eastward and westward; State Aid Project 20.51; Scotland County; \$22,552.82; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until Sept. 9 to construct 5.44 mi. State road from Unionville westward; State Aid Project 20.49, Putnam County; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

**Road Construction.**—Washington County, V. T. Spivey, Secy. Commr., Fayetteville, Ark.—Bids until October 1 to construct 20 mi. graded road in Improvement Dist. No. 10; Ozark Engineering Co., Engr., Springdale, Ark.

**Road Construction.**—Norfolk County Comsn. Roads and Bridges, New Kirm Bldg., Portsmouth, Va.—Bids until Sept. 9 to construct macadam roadway on Bolling Ave., Larchmont; specifications, etc., on file; R. B. Preston, Engr.

**Road Construction.**—North Carolina State





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Important not because it is a record installation, but because of the difficulties overcome. The line passes over rough and mountainous country and the pipe had to be hauled in wagons as far as possible and dragged the rest of the way. There must be no chance of having to repeat the work, the line must be permanent. This consideration limited the choice to Cast Iron Pipe.

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St. Louis—Security Building

Birmingham, Ala.—1002 American Trust Bldg  
San Francisco—Monadnock Building  
Minneapolis—Plymouth Building  
Buffalo—957 E. Ferry St.

*For quotations or estimates, apply to nearest sales office*



**Highway Comsn., Dist. Office, Charlotte, N. C.**—Bids until Sept. 10 to construct 3.02 mi. State highway in Gaston county; 31,570 sq. yds. plain cement concrete, reinforced concrete or combination cement concrete base and header course pavement with 29,810 sq. asphalt surfacing, etc.; specifications, etc., yds. Topeka, sheet asphalt or natural rock with State Highway Comsn., Raleigh, N. C.

**Rollers.**—(See Road Building Machinery.)

**Roofing.**—Dallas C. Kirby, Box 526, Winston-Salem, N. C.—(See Tile.)

**Rubber.**—F. M. Brown, Willowbrook, P. O. Blanchard, La.—To correspond with mfrs. of rubber and rubber products used in repair of casings and tubes.

**Salt.**—Army and Navy General Hospital, Quartermaster's Office, Hot Springs, Ark.—Bids until Sept. 10, 90,000 lbs. salt to use in water softening plant; information on application.

**Saw Mill Equipment.**—Lanier County Lumber Co., Milltown, Ga.—Second-hand steam negra; combination edger; board trimmer; log kicker and planer.

**Sewers.**—City, O. F. Holcombe, Mayor, Houston, Tex.—Bids opened to construct 650 ft. sanitary sewers in San Bernard St. from McKinney Ave. to alley in block No. 16; plans, etc., from City Engr.

**Sewers, etc.**—Department of Public Improvement, Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Bids until Sept. 14 to construct Locust Point Interceptor Section No. 3, (Sanitary Contract No. 106); 4,476 cu. yds. earth excavation; 2,455 lin. ft. 27-in. sewer; 11 manholes; 2,400 lin. ft. underdrain, etc.; also construct sewers and house connections in Dists. No. 37-B and 34-F, (Sanitary Contract No. 184); 19,798 lin. ft. 8 to 12-in. vitrified pipe sewer; 6,922 lin. ft. house connectors; 400 lin. ft. 4 and 6-in. underdrain; 100 manholes; 933 6-in. branches on sewer; plans, etc., from A. E. Christliff, Highways Engr.

**Sewers.**—City, J. L. Cobbs, Treas., Montgomery, Ala.—Bids opened Sept. 6 to construct storm sewers in Mary St. between Court and Sayre Sts.; plans, etc.; from H. A. Washington, City Engr.

**Sewers.**—Board of Commrs., A. S. Woodhouse, City Clk., Roncerverte, W. Va.—Bids opened to construct 200-ft. 6-in. sewers in Roncerverte Ave. east of Elm St.; plans, etc., on file.

**Sewers.**—City, L. A. Edwards, Clk., St. Albans, W. Va.—Bids until Sept. 23 to construct 120 lin. ft. 12-in. storm sewer; install 3 water boxes; plans, etc., from City Clk. or Oliver & Maupin, City Hall, Huntington, W. Va.

**Shear (Power).**—J. F. Wagner's Sons Co., 1149 Seventh St., Louisville, Ky.—New or second-hand 10-ft. power shear for about ½-in. iron and lighter.

**Shovels.**—See Road Building Equipment.

**Stains, Etc.**—J. J. Malone, Box 400, Greensboro, N. C.—Raw products for mfr. of shingle stains, wood preservatives, disinfectants, floor oils, sweeping compound, etc.

**Steel Castings, Etc.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Sept. 19 to furnish annealed nickel chrome steel or manganese steel castings; manganese bronze springs and splice plates; bronze bars; steel bars; paper fastener washers and cardboard. Blank forms and information (Circular 1458) on application to offices of Panama Canal; Asst. Purchasing Agts. at New York, New Orleans and Fort Mason, San Francisco; also United States Engr. offices throughout country.

**Springs (Wire).**—R. D. Gladney, Saltillo, Miss.—Catalogs or price list of wire springs.

**Syrup Making Machinery.**—R. S. Lazenby Prest., Circle "A" Corp. of America, Waco, Tex.—Syrup making machinery for carbonated beverages; daily output 2,000 cases.

**Tank.**—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—See Waterworks.

**Tanks (Steel).**—Cumberland County Refinery, Burkesville, Ky.—Prices on steel tanks from 250 to 500-bbl. capacity for crude oil and gasoline.

**Tanks (Steel).**—Cumberland County Re-steel tanks from 250 to 500 bbl. capacity for crude oil and gasoline; also steel drums.

**Tile.**—Dallas C. Kirby, Box 526, Winston-Salem, N. C.—Roofing tile for residence; 36x46 ft.

**Tire Tape.**—Purchasing Agt's. Office, Post-office Dept., Washington, D. C.—Bids Sept. 9, 500 lbs. black tire tape, ¾-in. wide; Circular S. 160.

**Tractors.**—See Road Building Machinery.

**Tractors (Caterpillar).**—Hampton Roads Equipment Co., 251 Arcade Bldg., Norfolk, Va.—Prices and catalogs from mfrs. of caterpillar tractors.

**Trimmers.**—H. L. Lawton, Lena, S. C.—Two 2 saw trimmers, 16 ft. or over, second-hand, good condition.

**Tubes.**—National Mfg. & Sales Co., O. C. Klingman, Mgr., 231 N. Spring St., Greensboro, N. C.—Names and addresses mfrs. of tubes to hold liquid, similar to tooth paste tubes; purchase in quantities.

**Twine (Cotton or Jute).**—Post Office Dept., Purchasing Agent, Washington, D. C.—Bids until Sept. 26, 600,000 lbs. jute twine or 450,000 lbs. cotton twine; information on application.

**Vacuum Cleaning System.**—Philadelphia Quartermaster Intermediate Depot, 21st. St. and Oregon Ave., Philadelphia, Pa.—Bids until Sept. 12 to furnish and install complete vacuum system at quartermaster depot; information on application; circular 22-22.

**Vulcanizing Machines.**—F. M. Brown, Willowbrook, P. O. Blanchard, La.—To correspond with mfrs. or vulcanizing machines, casings, or accessories tire repair shop.

**Wagon Loaders.**—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Wagon loaders.

**Waterworks.**—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Sept. 26 for erection of 100,000 gal. water tank and tower (alternates on steel and concrete) with pump and engine; also on drilling 8-in. well 700 ft. deep for sanatorium at Kerrville, Tex.; plans, specifications and proposal blanks from Phelps & Dewees, Architects, Gunter Bldg., San Antonio.

**Water-Works.**—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Bids until Sept. 10 to construct balancing reservoir, surge tank and closing shaft 13. Contract No. 51, Water Department; earth dam, sinking 2 shafts 12 ft. in diameter about 30 ft., etc.; 14,000 cu. yds. rolled earth embankment; 2,400 cu. yds. rock excavation; plans, etc., from Wm. A. Megraw, Water Engr.

**Water-Works.**—City, A. P. Kastler, Clk., Valparaiso, Fla.—Bids until Sept. 15 to construct water-works; 13,000 ft. 4 to 8-in. cast iron or wood water mains; 30,000 gal. tank with 100-ft. tower; 70-G. P. M. centrifugal pump with 10 H. P. oil or gasoline motor, belt connected; 9 fire hydrants, and neces-

sary fire specials, etc., on file or with Lawrence H. McCullough, Engr., Valparaiso, Fla., or Kingtree, S. C.

**Water-Works.**—Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids until Sept. 14 to construct reservoir; plans, etc., from M. A. Long Co., Engr., 1523 Munsey Bldg., Baltimore, Md.

**Well.**—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—See Waterworks.

**Wells.**—City, J. J. Scott, City Clk., Macon, Miss.—Bids until Sept. 21 to drill deep well or wells for light and water plant; plans, etc., on file.

**Woodworking Machinery.**—Machinery Clearing House, 424 Board of Trade, Indianapolis, Ind.—Second-hand Hawker Dowel machine; continuous feed glue jointer. Myers or other standard make; small planer and matcher; nearest point obtainable from Indianapolis.

**Woodworking Machinery.**—Sarasota Bee Co., C. M. Bosworth, Mgr., Box 405, Sarasota, Fla.—Bids in Oct. for 12-in. jointer and rip saw table complete; pony planer; cut off saw table and sanding machine; band saw and sanding machine; dado outfit.

**Yarn (Cotton).**—Nelson J. Quinn Co., 441 Valentine Bldg., Toledo, Ohio—Names and addresses mfrs. of cotton yarn or rope, to make mop head.

## Financial News

### New Financial Corporations.

Ark., Walnut Ridge—Planters National Bank, capital \$30,000, organized with T. J. Sharrum, Prest.; John A. Hill, Cashr. (Lately noted.)

Ark., Altus—First National Bank, capital \$25,000 will organize.

D. C., Woodridge Station—James P. Casbarian, Asst. Cashr. Washington Mechanics Savings Bank, A. M. Wildman and others; all Washington, D. C.; interested in establishing bank with capital of \$50,000.

Fla., Miami—Magic City Underwriters, capital \$100,000, will charter with L. V. DeVay, Prest.; Wm. T. H. King, Secy.-Treas.

Ga., Atlanta—Consolidated Loan & Savings Co. capital \$250,000 incptd., by H. B. Troutman, Geo. L. Bell, Jr.

Ga., Cartersville—American Liberty Fire Insurance Co. will charter with T. E. Johnson, W. J. Noble.

La., Denham Springs—School—City voted \$10,000 high school bonds. Address The Mayor.

La., New Orleans—New Orleans Bank & Trust Co., capital \$400,000, organized with G. Owen Vincent, Prest.; Paul H. Larroussin, V. P.

Md., Baltimore—Royal Building & Loan Assn., 162 Law Bldg., capital \$300,000 incptd., by H. Durkee, John D. Domschke.

Mo., St. Louis—Washington Saving & Building Assn., Wainwright Bldg., consolidation of Garfield Saving & Building Assn., and Irish-American Saving and Building Assn., capital \$1,000,000 with W. E. Wightman, Prest.; E. A. Kamp, Secy.

N. C., Fairmont—First National Bank, capital \$40,000, organized with A. J. Floyd, Prest.; J. F. Johnson, Cashr.

N. C., Thomasville—W. G. Kinkle, Z. V. Crutchfield and others are interested in establishing bank.

Tex., Houston—Industrial Bank & Trust.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



## Maintaining a Busy New York Highway at Small Cost—

Few thoroughfares in New York City carry a larger volume of automobile traffic than the Grand Concourse and Boulevard. With its eight miles of Tarvia pavement, this broad highway is the favorite route of thousands of motorists bound to and from the suburban districts lying north and east of the city. It is free from mud in winter, spring and fall—free from dust in summer—never "sticky"—smooth and firm all the time.

Yet this Tarvia pavement represents a very small investment.

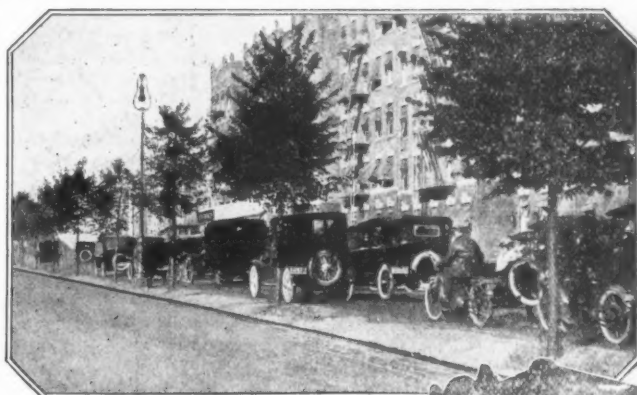
Ten years ago, the old macadam was broken up, resurfaced, and treated with "Tarvia-A," at a total cost of approximately one dollar per square yard.

Despite the severe service, only minor repairs and occasional treatments with "Tarvia-B" have been required to keep the roadway in first class condition. This maintenance, including all repairs, over the eight-year period, has averaged less than four cents per square yard annually.

These figures are striking evidence of the economy of Tarvia for road maintenance.

There is a grade of Tarvia for every road purpose—construction, maintenance and repair.

*Illustrated booklets  
free upon request.*



*Three views of the Grand Concourse and Boulevard, which give some idea of the heavy traffic over this thoroughfare.*



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Pittsburgh  
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Bethlehem



Co., organized with B. B. Mead, Prest.; D. H. Creager, Secy.

Tex., Jasper—East Texas Securities Co., capital \$25,000 inceptd., by Allen A. Few, A. L. Smith.

Tex., Plain Dealing—First State Bank, capital \$15,000 organized with A. S. Prince, Prest.

Tex., Temple—Guaranty State Bank, capital \$125,000, organized with E. W. Moore, Prest. I. P. Heard, Cashr.

W. Va., Princeton—Princeton Investment & Real Estate Co., capital \$50,000 inceptd., by E. E. Keyser, J. E. Thomas.

### New Securities.

Ala., Decatur—School—City voted \$100,000 school bonds. Address The Mayor.

Ark., Fort Smith—Bridge—J. M. Sparks, Jr., 11 N. 6th St., sold \$100,000 bridge bonds to I. H. Nakdimen, for City National Bank, at 90.2 per cent; 6 per cent, \$1000 denomination. (Lately noted inviting bids.)

Ark., Lepanto—Water, Sewer and Electric—Town will issue \$100,000 water, sewer and electric light bonds; R. C. Finn, Recorder.

Fla., Bushnell—Road—Sumter County sold \$250,000 road bonds to Finley Method Co.

Fla., Clearwater—Park—City voted \$45,000 park bonds; J. R. Thomas, Clk. (Previously noted.)

Fla., Coconut Grove—School—Board of Education will vote on \$30,000 school bonds.

Fla., Gainesville—Light and Water—City issued \$30,000 light and water bonds. Address The Mayor.

Fla., Lemon City—School—Board of Education will vote on \$60,000 school bonds.

Fla., Pensacola—A. S. Edwards, Supt. Public Instruction; Escambia county will receive bids until Sept. 8 on \$106,000 of 6 per cent semi-annual 10 5/6 yr. bonds.

Fla., Pensacola—F. D. Sanders, Mayor, will receive bids until Sept. 12 on \$145,000 of 7 per cent 1-10-yr. serial city bonds.

Fla., West Palm Beach—Drainage—Palm Beach County, Lake Worth Drainage Dist. sold \$750,000 drainage bonds to Wills & Sons & McCarthy.

Fla., Winter Park—Fire Equipment—City, Mayor Keezel will vote Sept. 20 on \$25,000 fire equipment bonds.

Ga., Gainesville—Hall County sold \$40,000 of 5 per cent bonds to Trust Co. of Georgia, Atlanta, Ga., at 93.75.

Ga., LaFayette—Road—Walker County sold \$400,000 road bonds to Robinson-Humphrey Co., Atlanta, Ga. (Previously noted voting.)

Ga., Montezuma—School—Montezuma School Dist. sold \$100,000 school bonds to Citizens National Bank. (Lately noted voting.)

Ga., Monticello—Drainage—Cedar Creek Drainage Dist. sold \$49,000 drainage bonds to local investors at 90. (Previously noted.)

Ky., Carrollton—Water and Light—City will vote Nov. 8 on \$18,000 water and light bonds; J. Earl Whitehead, Clk.

La., Abbeville—Water and Light—City voted \$15,000 water and light bonds. Address The Mayor.

Md., Upper Marlboro—School—Prince Georges County will receive bids until Sept. 6 on \$47,000 or \$50,000 school bonds; Nicholas Orem, County Supt.

Miss., Marks—Drainage Little Opossum Bayou Drainage Dist. Commrs. Quitman County will receive bids until Sept. 10 on \$65,000 of 6 per cent semi-annual \$1000 de-

nomination 30-yr. serial drainage bonds; J. W. Mack, Secy. Commrs.

Mo., Sarcosie—Water—City voted \$12,000 of 7 per cent. water bonds. Address The Mayor.

Mo., Troy—Road—Lincoln County sold \$200,000 of 5 per cent semi-annual \$1000 denomination road bonds to Smith, Moore & Co. and Mercantile Trust Co.; both St. Louis, Mo.

N. C., Canton—School—Board Trustees, H. D. Seerest, Secy., voted high school bonds.

N. C., Fayetteville—School—Board School Trustees, J. S. Schenck, Secy., will receive bids until Sept. 19 on \$250,000 school bonds; 6 per cent. semi-annual 40-yr.

N. C., Goldsboro—Funding—City sold \$95,000 of 6 per cent semi-annual funding bonds to Peoples Bank & Trust Co., J. G. Tyson, Clk. (Lately noted inviting bids.)

N. C., Goldsboro—Funding—City sold \$96,000 of 6 per cent semi-annual 8 1/4 yr. funding bonds to Peoples Bank & Trust Co., at 95.75 and interest. (Lately noted.)

N. C., Goldsboro—School—Goldsboro Township voted \$300,000 school bonds. Address Board of Education.

N. C., Granville—School—Board of Education, J. S. Schenck, Secy., will receive bids until Sept. 19 on \$250,000 of 6 per cent. semi-annual school bonds.

N. C., Hickory—Street—City will receive bids until Sept. 20 on \$125,000 of 6 per cent semi-annual \$1000 denomination street bonds, dated Sept. 1, 1921; R. G. Henry, City Mgr. and Clk.

N. C., Rocky Mount—Street and Sewer—City contemplates issuing \$750,000 street and sewer bonds. Address The Mayor.

Okla., Bartlesville—Street—City plans issuing \$27,000 street bonds. Address The Mayor.

Okla., Okemah—School—Attorney General, Austin, Tex., approved \$4,000 School Dist. No. 1 bonds of Okfuskee County.

S. C., Greenville—School—Trustees Sampson School Dist. No. 8-B voted \$30,000 school bonds.

S. C., Spartanburg—School—Cowpens School Dist. No. 50 will vote Sept. 6 on \$30,000 of 6 per cent school bonds; W. B. Potter, Trustee.

S. C., Walhalla—Sewer and Water City plans voting about Nov. 1 on \$125,000 of 6 per cent \$1000 denomination water and sewer bonds; W. M. Brown, Mayor. (Lately noted.)

S. C., Winnsboro—Road—Fairfield County will receive bids until Sept. 27 on \$50,000 of 6 per cent 20-yr. road bonds; M. C. Boulware, County Supvr.

Tenn., Athens—Road—McMinn County will receive bids until Sept. 10 on \$100,000 of 6 per cent semi-annual \$1000 denomination 30-yr. road bonds; John B. Elliott, Chrmn. County Court.

Tenn., Chattanooga—School—City will receive bids until Sept. 12 on \$250,000 of 6 per cent semi-annual \$1000 denomination 30-yr. school bonds; Alex. W. Chambliss, Mayor.

Tenn., Pulaski—Funding—Giles County sold \$125,000 of 6 per cent \$1000 denomination funding bonds, dated Aug. 1, 1921, to Caldwell & Co., Nashville, Tenn. at par and interest.

Tenn., Wartburg—School—Morgan County, John A. Jones, County Judge, will receive bids until Sept. 5 on \$80,000 school bonds, dated July 21, 1921.

Tex., Austin—Hospital—City will sell \$30,000 hospital bonds to Halsey, Stuart & Co., Chicago, Ill.

Tex., Coleman—School—Coleman Independent School Dist. registered \$35,000 of 5 per cent 5-40-yr. bonds with State Comptroller.

Tex., Comanche—Street—City, J. R. Eanes, Mayor, voted \$20,000 street bonds. (Lately noted to vote.)

Tex., Cuero—School—DeWitt and Gonzales counties will vote Sept. 10 on \$5,000 school bonds of County Line Common School Dist. Address DeWitt County Board of Education, Cuero, Tex., or Gonzales County Board of Education, Gonzales, Tex.

Tex., Dallas—Water and Incinerator—City Commrs. will receive bids until Oct. 1 on \$450,000 filtration plant and \$200,000 incinerator bonds; 5 per cent.

Tex., El Paso—Water, Street, School, Sewer, Park, Library, Drainage—City sold \$500,000 water extension, \$90,000 street extension, \$150,000 street and alley intersection, \$500,000 school, \$250,000 sewer, \$125,000 sewer disposal, \$100,000 park, \$10,000 library and \$125,000 drainage bonds to Commerce Trust Co., Kansas City, Mo., subject to being sanctioned by the voters on Sept. 6. (Lately noted to vote.)

Tex., Greenville—Funding and Street—State Comptroller registered \$75,000 of 6 per cent funding and \$25,000 5 per cent. street bonds.

Tex., Harlingen—Sewer Street and Electric—City registered \$48,000 sewer, \$40,000 street and \$32,000 electric bonds with State Comptroller.

Tex., Henrietta—Road—Clay County may vote on \$2,000,000 road bonds. Address County Commrs.

Tex., Jasper—Road—Jasper County voted \$250,000 road bonds. Address County Commrs.

Tex., Ladonia—School, Sewer and Water—City, A. W. House, Secy., will receive bids until Sept. 12 on \$50,000 school, \$35,000 sewer and \$15,000 water bonds; 6 per cent. semi-annual 10-40-yr.

Tex., Lufkin—School—Independent School Dist. registered \$40,000 of 6 per cent serial Dist., Mission—Water, Sewer, Etc.—City, G. Moore, Secy., will receive bids until Sept. 10 on \$100,000 of 6 per cent semi-annual 30-yr. improvement bonds.

Tex., Odessa—Road—Ector County, J. T. Cross, County Judge, will receive bids in October on \$100,000 of 5 1/2 per cent, 30-yr. serial \$1000 denomination road bonds, dated Jan. 1, 1921. (Lately noted.)

Tex., Post—School—Post Independent School Dist. registered \$7,500 school bonds with State Comptroller on Aug. 18.

Tex., Quanah—City Hall—City registered \$40,000 of 6 per cent serial city hall bonds with State Comptroller.

Tex., Santa Anna—School—Santa Anna Independent School Dist. registered \$15,000 of 6 per cent 5-10-yr. bonds with State Comptroller.

Tex., Stephenville—Sewer—Attorney General's Dept., Austin, Tex., approved \$10,000 of 6 per cent serial sewer bonds.

Tex., Timpson—Electric—City will vote Sept. 6 on electric bonds. Address The Mayor.

Tex., Whitney—Electric—Attorney General's Dept., Austin, Tex., approved \$15,000 electric light bonds. (Lately noted to vote.)

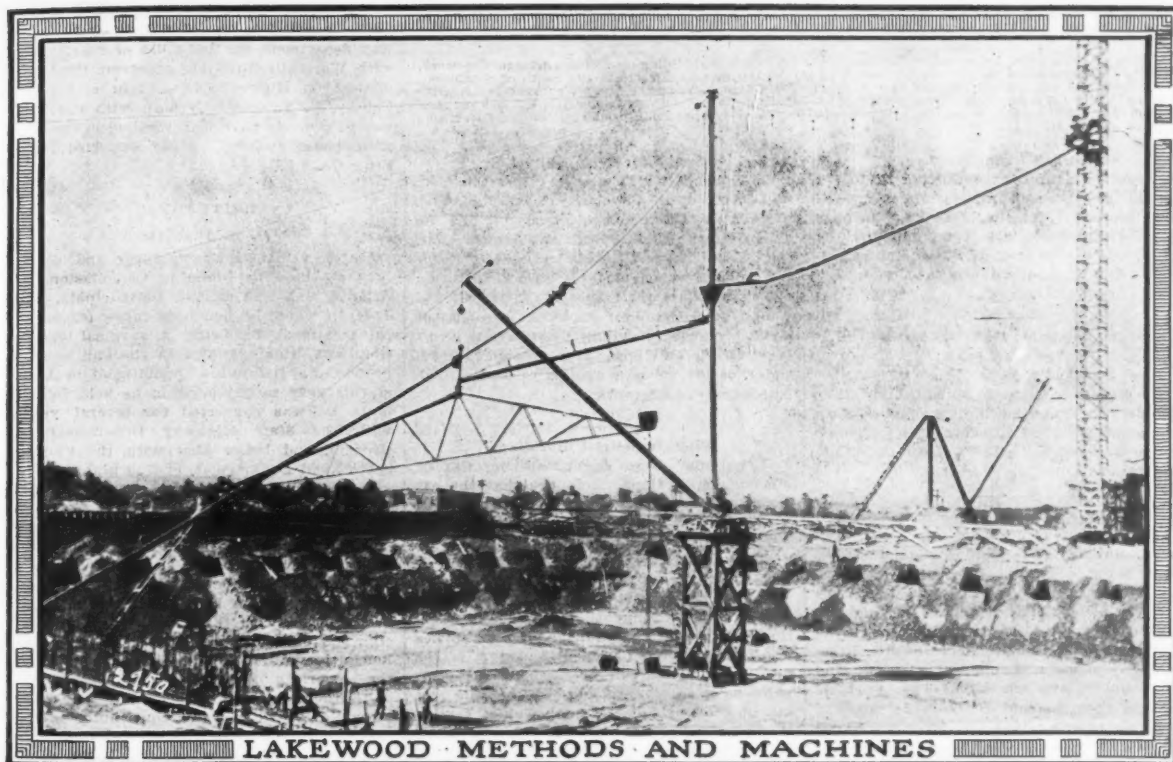
Tex., Wichita Falls—Road—Wichita County sold \$1,500,000 road bonds to, St. Louis firm. Address County Commrs.

W. Va., Elkins—Water—City voted \$125,000, water bonds; H. G. Kump, Mayor. (Lately noted to vote.)

### Railways.

Ark., Rosboro—Caddo River Lumber Co., T. W. Rosborough, Vice Prest. & Gen. Mgr., proposes to build 16 mi. lumber road from near Rosboro to timber lands at estimated cost of about \$10,000. a mile. Construction bids to be invited soon.



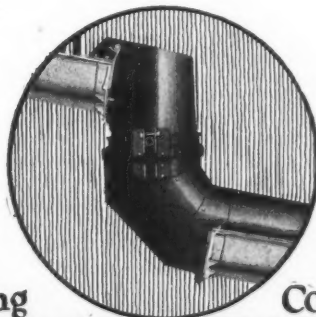


### Snare & Triest Use Lakewood Plant on Perth Amboy Reservoir

Two Lakewood mast hopper counterweight plants helped to complete the Lakewood plant used by Snare & Triest on the construction of a concrete reservoir for the city of Perth Amboy.

Two 1-yard Lakewood mixers, as well as Lakewood towers and chutes, completed the mixing and placing outfit.

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## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Important Announcement.

A practically uniform reduction of 10 per cent in the prices of malleable iron and steel (SS class), chains, sprockets, buckets and other products has been announced by the Link-Belt Company of Philadelphia, Chicago and Indianapolis, the new prices taking effect immediately.

### Georgia Company Will Build Gasoline Storage Tanks.

J. S. Schofield's Sons Co., Macon, Ga., manufacturers of engines, boilers, high grade machinery, mill and machinists supplies, have also engaged in the production of gasoline storage tanks of 10,000, 12,000, 15,000, 18,000, and 20,000 gallons capacity.

### Duponts Make Notable Display at Chemical Exposition.

E. I. duPont de Nemours & Co., Inc., will occupy six spaces at the seventh National Exposition of Chemical Industries in New York City Nos. 500, 502 and 504 and 601, 603 and 605, where there will be represented the dye-stuffs department, chemical products division, lithopone, dry-colors and pigments section and acids and heavy chemicals. The products of all of these include a very wide range of chemicals entering into the processes of all basic industries as well as many others. The important work of these products is revealed in their great variety and the even greater number of uses to which they are devoted.

### Display of Steel Products.

The Blaw-Knox Company, Pittsburgh, Pa., will occupy booth 716 at the Chemical Exposition that is to take place September 12 to 17 inclusive at the Eighth Regiment Armory, New York City. They will exhibit samples of forge and hammer welded steel plate work, operating models of clam shell buckets, a sample sectional steel building and photographs of other products, including Blaw forms, structural steel buildings, transmission towers, water cooled furnace appliances and miscellaneous steel plate work.

### Fine Industrial Building.

The Dodge Sales & Engineering Co., of Mishawaka, Indiana, announce that the excavation for their new \$1,000,000 building at 49 Park Place, New York, is practically complete. This industrial edifice will occupy a space of 165 feet on West Broadway, 50 feet on Murray street and 75 feet on Park Place. The present plans provide for 12 stories, but the foundation and the construction will permit the addition of four stories if necessary. The basement and part of the first three floors will be used by the company as a warehouse and for the sale and distribution at home and abroad of Dodge, Oneida and Keystone products for mechanical transmission of power. The structure will probably be known as "Power and Transmission Building." It is expected to be ready for use May 1 next.

### Resurfacing Contract Awarded.

Bids received by the New York State highway department for 3.62 miles of resurfacing with Warrenite-Bitulithic pavement the Caledonia-Avon Highway No. 5273 in Livingston County, N. Y., originally built with Portland cement concrete pavement, resulted in the contract being awarded to the Standard Bitulithic Co.

### OBITUARY.

#### H. E. Anschutz.

Harry E. Anschutz, engineer and secretary of the City Planning Commission, of Atlanta, Ga., who died in Philadelphia, Pa., July 11, where he had been taken for medical treatment following a surgical operation, was widely known in the engineering profession. Before his appointment in April of this year to the position he held in Atlanta he was connected for several years with the State Highway Department of Georgia, and before that with the Florida State Road Department, and as highway engineer of De Soto County, Fla., and city engineer of Clearwater, Fla.; Troy, Ala., and Bristol, Va.-Tenn., respectively. For some years previously he had been in the municipal engineering department at Philadelphia, which was his native place. He was also in the employ of the United States Navy Department, both in this country and on foreign stations, and while thus engaged spent much time abroad. He was a member of the American Society of Civil Engineers and other organizations of kindred character. At times he was a contributor to the "Manufacturers Record." Mr. Anschutz, who was 61 years of age, is survived by his wife, Mrs. Grace R. Anschutz, and a brother, Edward Anschutz, of Philadelphia, where the interment took place.



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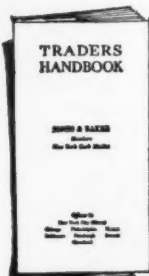


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Fairmont, West Virginia

## NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns,  
counties, school, road or drainage districts that you  
may be able to take in exchange for work. Address  
us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla.  
Chicago, Ill. Glasgow, Mont.

## WE BUY MUNICIPAL BONDS

We are interested in the purchase of  
Southern Municipals including road,  
school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.



## Trade Literature.

### Tanks.

Bulletin 400 of the Youngstown Boiler and Tank Company, Youngstown, Ohio, is devoted to displaying the merits of "Youngstown Tanks, Standardized," in type and illustrations. Descriptions are lucid and complete and they are accompanied by valuable tabulated data. All of the pictures are fine. Some are unique; for instance, an illustration of a tank of 30,000 gallons capacity built in the shape of a milk bottle.

### Steel Lumber Handbook.

The second edition of the National Steel Lumber Handbook issued by the National Pressed Steel Company, Massillon, Ohio, dated 1921, contains complete information and authentic data pertaining to the use of steel lumber sections and kindred materials. It is comprehensive, accurate and reliable and will be heartily welcomed by everyone interested in such construction. The illustrations displaying construction details are particularly valuable as well as the tabulated facts prepared for convenient reference. Apparently no pains have been spared to make the manual as perfect as possible. It has more than 180 pages.

### Centrifugal Pumps.

In their bulletin H-1 the Frederick Iron & Steel Co., of Frederick, Md., present fine descriptions and pictures of their line of centrifugal pumps for general service, fire service, boiler feeds, waterworks, irrigation, reclamation, circulating, etc. These pumps can also, it is noted, be used for pumping acidulous water, thick liquids, and other fluids such as sewage, paper pulp, pulped gun cotton, etc. Another bulletin, O-1, similarly presents the advantages of single suction, heavy duty centrifugal pumps which the company has developed and is now making to supply a demand for high grade pumps for pulp and paper mill industries. Both bulletins contain valuable information concerning the use of pumps.

### Loaders for Wagons, Trucks, Etc.

The Haiss "Path Digging" loaders are illustrated and completely described in Booklet No. 621 of the George Haiss Manufacturing Company, Inc., New York City. These machines are employed to load wagons, trucks, and other vehicles of transportation, and they are accurately described as being "self-feeding, self-propelling and self-crowding."

### Lockseaming Machines.

A folder issued by the Stolp Company, Inc., Geneva, N. Y., describes and pictures the Stolp automatic lockseaming machine, which, it is stated, "employs an entirely new method of seaming which is simplicity itself." This is covered by a process or method patent. It is noted that the machine will lockseam taper tubes within certain limits, and that it will lockseam tubes of any thickness of metal. Other valuable features are also observed.

### As To Tank Cars.

The Pennsylvania Tank Line, Sharon, Pa., have issued "The Tank Car," a tastefully prepared book of nearly 150 pages which constitutes a ready reference for all matters pertaining to the operation, repair and economical maintenance of tank cars. All of the latest special rulings, traffic regulations and repair charges as fixed by the American Railway Association are included. The book also shows in clearest details the numerous accounting forms, technical engineering charts, and half-tone reproductions of Pennsylvania construction. The company's long experience is summed up in this publication.



# PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close September 10, 1921.

**FOR SALE**—One Lidgerwood Tower Cableway Excavator. Sealed proposals for purchase will be received at office of Mississippi River Commission, 3d District, P. O. Box 404, Vicksburg, Miss., until noon September 10, 1921, and then opened. Information on application.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., August 30, 1921.—Sealed proposals will be opened in this office at 3 P. M., September 21, 1921, for a Refrigerating Plant in the Mess Hall and Kitchen Building at the U. S. Public Health Service Sanatorium, Dawson Springs, Kentucky, in accordance with specification and drawing, copies of which may be had at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Proposals for annealed nickel chrome steel or manganese steel castings, manganese bronze springs and splice plates, bronze bars, steel bars, paper-fastener washers, and cardboard.—Sealed proposals will be received at the Office of the General Purchasing Office, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M., September 19, 1921, at which time they will be opened in public for furnishing the above mentioned material. Blanks and information relating to this Circular (1458) may be obtained from this office the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Calif.; also from the United States Engineer Offices in the principal cities throughout the United States. A. L. Flint, General Purchasing Officer.

Bids close September 20, 1921.

### \$100,000 6% Bonds.

Bids will be received to and including September 20th, 1921, by the city of Clifton Forge for the purchase of \$100,000 6 per cent, twenty (20) year bonds of the city of Clifton Forge, Virginia. All bids must be accompanied by certified check for \$500. The right is reserved to reject any or all bids.

Address all communications to  
C. P. NAIR,  
Chairman of Finance Committee,  
Clifton Forge, Virginia.

Bids close September 19, 1921.

### \$450,000 6% Bonds

Daytona, Fla.

Notice is hereby given that the Board of City Commissioners of the city of Daytona, Florida, will receive sealed bids for the purchase of \$450,000 par value of bonds of the said city of Daytona up to 2 o'clock P. M. on the 19th day of September, 1921.

The amount of bonds for sale is \$450,000 par value, the bonds are dated November 1st, 1919, and are issued in denominations of \$1,000 each, and are to mature and become due and payable November 1, as set forth in the following schedule, to-wit: \$5,000 in 1924 and 1925; \$8,000 in 1926 to 1928; \$12,000 in 1929 to 1931; \$15,000 in 1932 to 1934; \$18,000 in 1935 to 1937; \$21,000 in 1938 to 1940; \$24,000 in 1941 to 1943; \$27,000 in 1944 to 1946; \$30,000 in 1947 and \$35,000 in 1948.

Said bonds are to bear interest at the rate of six per cent per annum, payable semi-annually on May 1st and November 1st, with interest coupons attached evidencing the interest semi-annually on the principal sum mentioned in said bonds, until the principal sum of the said bonds shall become due. Both principal and interest of said bonds are to be payable at the National Bank of Commerce in New York, New York City, N. Y., or at the Merchants Bank, Daytona, Florida, at the option of the holder. Bids will be received on or before the 19th day of September, 1921, provided they are submitted not later than 2 P. M. on said last mentioned date. Each bidder is required to deposit with his bid a certified check in the amount of two per cent of the amount of bonds covered by the bid, such certified check to be payable to the order of the city of Daytona. Said check shall be a guarantee of full compliance with the bid submitted and shall be considered as liquidated damages in the event of the acceptance of such bid, and the failure on the part of the bidder to comply with the terms thereof. The Commissioners reserve the right to reject any or all bids and re-advertise the bonds or any portion of the same remaining unsold. The validity of these bonds has been approved by the judge of the Seventh Judicial Circuit Court of Florida and by John C. Thompson, bond attorney of New York City.

A. MILLIGAN,  
HENRY T. TITUS,  
E. L. BOND,

City Commissioners of the City of Daytona,  
Florida.

I hereby certify that above and foregoing statements are true.

GEO. F. CROUCH,  
Clerk and Collector, City of Daytona, Fla.

Bids close October 3, 1921.

### \$690,000 5% Road Bonds

Harrisonburg, La.

Sealed bids will be received by the Police Jury for Catahoula Parish, State of Louisiana, up to 2 P. M. o'clock Monday, October 3, 1921, for the purchase of the entire issue of road bonds of Road Districts Nos. 1, 2 and 3 of the Parish of Catahoula, dated February 1, 1920, maturing serially on the first of February, 1921 to 1940, both inclusive, and bearing interest at the rate of 5 per cent per annum, payable semi-annually on the first days of February and August. Said bonds for each road district being as follows, to-wit:

For Road District No. 1.—Four hundred and twenty one-thousand-dollar bonds, aggregating \$400,000.

For Road District No. 2.—Two hundred and twenty one-thousand-dollar bonds, aggregating \$220,000.

For Road District No. 3.—One hundred and forty five-hundred-dollar bonds, aggregating \$70,000.

Each bid must be accompanied by a check, payable to J. B. Fain, President, for two and one-half per cent. of the amount of bonds bid for, drawn on some national bank doing business in the State of Louisiana, or some solvent chartered State bank doing business under the laws of the State of Louisiana.

The checks of unsuccessful bidders will be returned to them promptly, and the check of the bidder whose bid is accepted will be returned to him upon his taking and paying for the bonds in accordance with the terms of his bid, or will be forfeited as full liquidated damages in the event of his failing to accept delivery and pay for the bonds in the terms in accordance with his bid.

Official advertisement now running in official journal of parish.

For further information address J. B. Fain, Jonesville, La., or J. K. McGee, Harrisonburg, Louisiana.

J. B. FAIR,  
President Police Jury of Catahoula Parish.

Attest:  
J. K. MCGEE,  
Secretary.



Bids close September 19, 1921.

**\$35,000 6% Water and Sewer Bonds**  
Lanett, Ala.

Sealed bids will be received by L. H. Wright, mayor, until September 19, 1921, at 12 o'clock noon, for \$35,000 6 per cent. Semi-Annual Water and Sewer 10-year bonds, dated September 1, 1921. Two per cent. (by certified check) required with bid. The right is reserved to reject any or all bids.

L. H. WRIGHT, Mayor.

Bids close September 19, 1921.

**\$60,000 6% Municipal Bonds.**  
Stuart, Fla.

Sixty thousand dollar issue of municipal bonds of the town of Stuart, Florida, Palm Beach county, bearing date July 1st, 1919, and payable annually from 19.5 to 1944.

Said bonds bearing interest at the rate of 6 per cent. per annum, payable semi-annually, and the principal and interest on said bonds shall be paid at the Seaboard National Bank, New York City and at the office of the city clerk of the town of Stuart, Palm Beach county, Florida.

Sealed bids will be received by J. F. Gregg, town clerk of Stuart, Florida, up to 8:30 P. M. at the Town Hall of Stuart, Florida, on Monday, the 19th day of September, 1921.

Town Council reserves the right to reject any or all bids.

Certified check of \$1,000 shall accompany each and every bid.

Said bonds have the preliminary approval of John C. Thompson, bond attorney.  
J. F. GREGG, City Clerk.

Bids close September 21, 1921.

**School**

Hendersonville, North Carolina.

Notice is hereby given that sealed proposals will be received until September 21, 1921, at 10 o'clock A. M., at the office of the supervising architect, for the erection of a two-story and basement school building, approximately 55x140, at Mills River, North Carolina.

Separate bids will be received for the general contract, plumbing, heating and electric wiring.

All bids must be in strict accord with the plans and specifications, and the same may be obtained from, and in the discretion of Erle G. Stillwell, architect, Hendersonville, North Carolina, upon a deposit of twenty-five dollars, which will be refunded when the documents are returned in good condition.

All bids for the General Contract must be accompanied by a certified check in the sum of one thousand dollars as a guaranty; the same to be returned to each unsuccessful bidder immediately on letting the contract.

The party to whom the contract is awarded will be required to enter into a written agreement and furnish a surety bond, acceptable to the Board of Education, in the sum of fifteen thousand dollars.

The right to accept or reject any or all proposals is reserved.

By order of the Board of Education, Henderson County, Hendersonville, North Carolina.

Bids close Sept. 20, 1921.

**Stone Church.**  
Salem, Virginia.

The building committee of College Ev. Lutheran Church of Salem, Virginia, invite sealed proposals for the erection of a stone church building in accordance with plans and specifications prepared by the architect, O. M. Topp, 7106 Jenkins Arcade, Pittsburgh, Pa.

Plans and specifications will be on file on and after August 20, 1921, with the architect and also at the office of R. W. Kime, Salem, Virginia.

All bids must be marked "Bid on College Ev. Lutheran Church" and filed with D. R. Carpenter, Chairman, Salem, Va., on or before September 20, 1921. No bid will be considered unless it is accompanied by a certified check in the sum of Two Thousand (\$2,000) dollars, made payable to D. R. Carpenter, Chairman, as a guarantee that the bidder will execute the contract, if it is awarded.

A deposit of \$10 per set will be required with each set of plans and specifications and will be refunded if the plans and specifications are returned within five days after the closing of bids, or before.

The committee reserves the right to reject any and all bids.

Bids close September 16, 1921.

**School Building**  
Charlotte, N. C.

Sealed proposals will be received until 12 o'clock M. Thursday, the 16th day of September, 1921, for the construction of the Belmont Vocational School Building for the city of Charlotte, N. C.

Drawings and specifications are on file at the office of H. P. Harding, Superintendent of Schools, City Hall, and in the office of Charles C. Hook, architect, Charlotte, N. C. Contractors receiving drawings and specifications must deposit with architect ten dollars as a guarantee that the drawing will be returned and a bona fide proposal submitted, after which the ten dollars will be refunded.

A certified check in the sum of one thousand dollars must accompany each proposal, said check to be forfeited if the successful contractor fails to deliver a satisfactory surety bond as called for in the specifications. Check to be made payable to Board of School Commissioners, Charlotte, N. C. Proposals to be addressed to the undersigned. The right is reserved to reject any and all proposals.

H. P. HARDING,  
Secretary.

Bids close September 14, 1921.

**Alterations in Municipal Auditorium**  
Savannah, Ga., August 31, 1921.

Office Board of Purchase, City of Savannah.—Bids will be received at the office of Clerk of Council until September 14, 1921, at 4:30 P. M., for furnishing all material and labor necessary to complete certain alterations in the Municipal Auditorium at Savannah, in accordance with plans and specifications on file in the office of Board of Purchase, City Hall, Savannah, Ga.

For further information apply to the Board of Purchase.

The city reserves the right to reject any and all bids and to waive any informalities in the bids.

J. W. MOTTE,  
Purchasing Officer.

Bids close September 20, 1921.

**Street Improvements**  
Daytona, Fla.

Sealed proposals will be received by the City Commissioners of Daytona, Florida, at the Commissioners' Office, for constructing street improvements in and for the city of Daytona, Florida, until 2 P. M. September 20, 1921, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material, machinery and equipment of every kind necessary to construct approximately 123,000 square yards of brick, concrete, asphalt block or bituminous pavements, with necessary curb, storm drainage and other appurtenances, all complete and in accordance with plans and specifications on file at the office of the engineers and the city clerk.

Each bid must be accompanied by a certified check on a bank satisfactory to the City Commissioners, or bidders' bond for five (5) per cent of the amount bid, drawn to the order of the clerk of the city of Daytona, George F. Crouch.

A bond in the sum of twenty-five (25) per cent of the amount of the contract with satisfactory surety will be required for the faithful performance of the work.

All bids will be compared on the basis of the engineers' estimate of the work to be done.

Copies of the specifications may be obtained from the city or engineers upon receipt of \$5.00. Plans may be seen at the office of the clerk or engineer.

Bidders are earnestly urged to procure a satisfactory offer for the issue of four hundred fifty thousand (\$450,000.00) dollars six per cent bonds of the city of Daytona, which bonds are advertised to be sold on September 19, 1921.

The letting of this contract for street improvements is dependent upon the sale of the above bond issue.

The right is reserved to reject any or all bids.

This 30th day of August, 1921.  
CITY OF DAYTONA, FLORIDA.  
A. MILLIGAN, Mayor,  
GEO. F. CROUCH, Clerk,  
E. L. BOND,  
HENRY T. TITUS,  
City Commissioners.  
THE J. B. MCCRARY COMPANY,  
Engineers, Atlanta, Georgia.

Bids close September 30, 1921.

**Club Building**

The Board of Directors of the Catholic Club Building Association will receive bids on six story fireproof club building up to noon of the 30th day of September, 1921. Bids to be sealed and delivered to the architects, Regan and Weller and H. J. Kramer, eighth floor Bank of Commerce Building, Memphis, Tenn. Separate bids invited on the following: General Contract, Heating, Ventilating, Plumbing, Electrical Work, Elevators, Ice Water System, Vacuum Cleaning System. A deposit of \$25.00 is required for the safe return of plans and specifications. Certified check or bid bond to accompany bid and statutory bond required all as per specifications. Right is reserved to reject any or all bids. Address architects for plans and specifications.

E. F. LONGINOTTI,  
Secretary.

Bids close September 15, 1921.

**Bridge**  
Valparaiso, Fla.

Sealed proposals for furnishing 4,100 feet juniper or cypress piling, lengths 10 to 50 feet; 81,000 feet yellow pine heart lumber; 7,900 lbs. O. G. washers; and 1,472 lbs. cut nails; also bids for the erection of one 734 feet, 50 span, pile bent bridge over Sunset Bay, will be received by the Clerk of the City of Valparaiso, Florida, until 1 o'clock Thursday, September 15, 1921. Certified check in the amount of \$200 in favor of the City of Valparaiso must accompany all bids. The right is reserved to reject any and all bids. Plans and specifications may be seen at the office of the Clerk or by mail upon receipt of \$5.00.

A. P. KASTLER, SR.,  
City Clerk.

LAURENCE H. McCULLOUGH,  
Valparaiso, Florida, and Kingstree, S. C.,  
Engineer.

**Bridge Construction**

STATE OF MARYLAND  
STATE ROADS COMMISSION  
NOTICE TO CONTRACTORS

Sealed proposals for building the following bridges:

CECIL COUNTY, CONT. No. CE-27: Double 57 ft. 6 inch Span Reinforced Concrete Arch Bridge over North East Creek near North East, including earth approaches and fill and concrete surfacing.

CECIL COUNTY CONT. No. CE-29: Single 68 ft. 0 inch Span Reinforced Concrete Arch Bridge over Principio Creek near Principio, including earth fill and concrete surfacing.

CECIL COUNTY, CONT. No. CE-30: Double 60 ft. 10 inch Span Steel and Concrete (Steel Girders encased), Girder Bridge over Conowingo Creek including earth approaches and concrete surfacing, steel girders furnished by State Roads Commission.

HOWARD CO. CONT. No. HO-18: Single 25 ft. (Approx.) Reinforced Concrete Girder Bridge in Ellicott City.

PR. GEO. CO. CONT. No. P-31. Single 37 ft. Span Reinforced Concrete Girder Bridge over Hensons Creek.

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 13th day of September, 1921, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of five hundred (\$500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 22nd day of August, 1921.

J. N. MACKALL,  
Chairman.

L. H. STEUART,  
Secretary.



Bids close September 13, 1921.

**State Road**STATE OF MARYLAND.  
STATE ROADS COMMISSION.

Baltimore, Md., August 31, 1921.  
Sealed proposals for building one section of State highway, as follows:  
Frederick Co. Cont. No. F-40—One section of State highway from St. Anthony to Motters Station, a distance of 1.83 miles (concrete) will be received by the State Roads Commission, at its offices, 691 Garrett Building, Baltimore, Md., until 12 M. on the 13th day of September, 1921, at which time and place they will be publicly open and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted. No bids will be received unless accompanied by a certified check for the sum of five hundred (\$500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 30th day of August, 1921.

J. N. MACKALL, Chairman.

L. H. STEUART, Secretary.

Bids close Sept. 21, 1921.

Bids close September 14, 1921.

**Bridge and Approaches**DEPARTMENT OF PUBLIC IMPROVEMENTS.  
SUB-DEPARTMENT OF HIGHWAYS  
ENGINEER.

Baltimore, Md., August 31, 1921.

Sealed proposals, executed in duplicate and addressed to the Board of Awards, in care of the City Register, will be received by him at his office until 11 o'clock A. M., September 14th, 1921, for furnishing material and performing all necessary work to complete the Philadelphia Road Bridge and Approaches over Herring Run.

Envelopes must be marked "Proposal to Construct the Philadelphia Road Bridge and Approaches Over Herring Run, Baltimore, Md."

Plans and specifications and blank proposal sheets will be furnished upon deposit of ten (\$10.00) dollars at this office, Room 8, City Hall.

A certified check of the bidder on a clearing house bank, drawn to the order of the Mayor and City Council in the amount of five thousand (\$5,000.00) dollars, must accompany each bid.

The Board of Awards reserves the right to reject any or all bids.

A. E. CHRISTHILF,  
Highways Engineer.  
H. G. PERRING,  
Chief Engineer.

Approved

WM. F. BROENING.

President Board of Awards.

Approved

FRANK DRISCOLL.

Assistant City Solicitor.

Bids close September 15, 1921.

**Sewers**

Laurel, Delaware, August 29, 1921.

Sealed proposals will be received by the Mayor and Council of Laurel, Delaware, at the Town Hall until 2 P. M., Thursday, September 15th, 1921, for the construction of combined sewers, consisting of approximately 6,700 lineal feet 6-inch to 27-inch terra cotta pipe sewers and house connections, 15 manholes and 39 storm water inlets.

Plans and specifications may be seen at the office of the Town Clerk, Laurel, Delaware, or at the office of F. H. Dryden, engineer, Salisbury, Maryland.

The Mayor and Council reserve the rights to reject any or all bids and to award the contract as they deem to the best interest of the town.

By order of Mayor and Council of Laurel, Delaware.

P. EDWARD WOOTEN,

Town Clerk.

F. H. DRYDEN, Engineer.

Bids close September 14, 1921.

**Sewer**DEPARTMENT OF PUBLIC IMPROVEMENTS.  
SUB-DEPARTMENT OF HIGHWAYS  
ENGINEER.

Baltimore, August 31, 1921.

Sealed bids or proposals for the construction of Locust Point Interceptor Section No. 3 as outlined in Sanitary Contract No. 166 comprising approximately

4476 cubic yds. earth excavation,

2455 linear ft. 27-inch sewer,

11 manholes,

2400 linear ft. underdrain and various other work incidental to the above.

will be received until 11 A. M. on Wednesday, September 14, 1921.

Proposals must be made in duplicate and must be addressed to the Board of Awards and sent to the office of the City Register, City Hall, Baltimore, Md., accompanied by a certified check of the bidder for seven hundred and fifty dollars (\$750.00) on a clearing house bank, drawn to the order of the Mayor and City Council of Baltimore.

Right is reserved to reject any and all bids.

Bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications and plans may be obtained at the office of the Highways Engineer, City Hall, Baltimore, Md., on the payment of five dollars (\$5.00), which will be refunded upon the return of the specifications and plans in good condition.

A. E. CHRISTHILF,

Highways Engineer.

H. G. PERRING,

City Engineer.

Approved

WM. F. BROENING.

President Board of Awards.

Approved

FRANK DRISCOLL.

Assistant City Solicitor.

Bids close October 1, 1921.

**Drainage Work**

NOTICE TO CONTRACTORS.

Beaumont, Texas.

Sealed bids will be received by the Commissioners of Drainage District No. 6, Jefferson County, Texas, up to 10 o'clock A. M. on the 1st day of October, A. D. 1921, for furnishing all tools, machinery and labor for constructing drainage ditches, using Hillebrandt's Bayou as a main, designated as Main "B," to Rosedale. The amount of yardage in this project is approximately one million cubic yards. Plans and specifications may be seen at the office of the Drainage Commissioners in the Temperance Building, Beaumont, Texas, and by applying to C. L. Scherer, drainage engineer, at the same place. Each bid must be accompanied by a certified check for five (5) per cent of the amount bid, made payable to Guy M. Junker, chairman. All bids must be in sealed envelopes, addressed to Guy M. Junker, chairman, and plainly marked bid on "Drainage Improvement to Hillebrandt's Bayou." Work to be paid for in cash.

The Drainage Commissioners reserve the right to reject any and all bids.

HAL. G. LAND, Secretary.

C. L. SCHERER, Engineer.

Bids close September 15, 1921.

**Water-Works**

Valparaiso, Fla.

Sealed proposals for supplying approximately thirteen thousand feet four to eight-inch grade "B," C. I. or wood water mains; one thirty thousand gallon tank with 100 ft. tower; one 70 G. P. M. centrifugal pump with 10 H. P. oil or gasoline motor, belt connected; nine fire hydrants; and necessary pipe specials. Also proposals for the installation or erection of the foregoing, will be received by the Clerk of the City of Valparaiso, Fla., at 1 o'clock Thursday, September 15, 1921.

Certified check in favor of the City of Valparaiso, as evidence of good faith, in the amount of \$200 must accompany all bids. The right is reserved to reject any and all bids. Plans and specifications may be seen at the office of the Clerk or by mail upon receipt of \$5.00.

A. P. KASTLER, SR.,

Clerk.

LAURENCE H. MCCULLOUGH,

Valparaiso, Florida, and Kingstree, S. C.  
Engineers.**Paving**

Sealed proposals will be received by the Mayor of Danville, Kentucky, until 7.30 P. M., September 29, 1921, for the construction of thirty-five thousand square yards of sheet asphalt pavement. Bids will be accompanied by \$1,500 in cash or certified check, payable to City Treasurer of Danville, Ky. Plans and specifications may be seen at office of S. F. Crecelius, Civil Engineer, Danville, Ky.

..... W. O. McINTYRE, Mayor,  
Danville, Ky.

Bids close September 14, 1921.

**Sewers and House Connections**DEPARTMENT OF PUBLIC IMPROVEMENTS.  
SUB-DEPARTMENT OF HIGHWAYS  
ENGINEER.

Baltimore, August 31, 1921.

Sealed bids or proposals for the construction of Sewers and House Connections in Districts 37-B and 34-F as outlined in Sanitary Contract No. 184, comprising approximately

1503 Lineal ft. 12-in. Vitrified Pipe Sewer,

632 Lineal ft. 10-in. Vitrified Pipe Sewer,

17,603 Lineal ft. 8-in. Vitrified Pipe Sewer,

6,922 Lineal ft. House Connections,

100 Lineal ft. 6-in. Underdrain,

300 Lineal ft. 4-in. Underdrain,

100 Manholes,

935 6-in. Branches on Sewer,

7,500 Sq. ft. relaying sidewalks over trenches and various other work incidental to the above,

will be received until 11 A. M. on Wednesday, September 14, 1921.

Proposals must be made in duplicate and must be addressed to the Board of Awards and sent to the office of the City Register, City Hall, Baltimore, Md., accompanied by a certified check of the bidder for one thousand dollars (\$1,000.00) on a clearing house bank, drawn to the order of the Mayor and City Council of Baltimore.

Right is reserved to reject any and all bids.

Bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications and plans may be obtained at the office of the Highways Engineer, City Hall, Baltimore, Md., on the payment of five dollars (\$5.00), which will be refunded upon the return of the specifications and plans in good condition.

A. E. CHRISTHILF,

Highways Engineer.

H. G. PERRING,

Chief Engineer.

Approved

WM. F. BROENING.

President Board of Awards.

Approved

FRANK DRISCOLL.

Assistant City Solicitor.

**Oil Engines, Generators and****Switchboard**

Dillon, S. C.

Manufacturers and dealers in Semi-Diesel type oil engines, generators, exciters and switchboards are requested to quote prices to the Town Council and the Commissioners of Public Works of Dillon, S. C., on 2,300 H. P. units and alternate prices on 1,200 H. P. and 1,300 H. P. units.

Quotations are requested as follows:  
First—The lowest cash price acceptable.  
Second—The best terms allowed.

Third—Any form of lease proposition that may be afforded.

Specifications may be obtained from the Ryan Engineering Company upon deposit of ten dollars (\$10.00), which deposit will be returned when the specifications are returned according to instructions contained therein.

Information concerning the time for submitting bids is given in the specifications.

A copy of the specifications will be on file with City Clerk and Treasurer of Dillon, S. C.

RYAN ENGINEERING CO., ENGINEERS,

Arcade Building, Columbia, S. C.

TOWN OF DILLON, S. C.

GORDON McLAURIN, Mayor.

L. C. BRADY, JR., Chrmn. Com. Public Works.



# CLASSIFIED OPPORTUNITIES

## MINERAL AND TIMBER LANDS, WATER POWERS, MISCEL- LANEOUS PROPERTIES

**FUEL OIL**  
**LARGE QUANTITIES** of fuel oil 24/26 gravity, immediate delivery on board buy own tank cars, E. O. B. Louisiana. Sacrifice. Immediate action necessary. E. George & Co., 407 Broadway, New York.

**COAL LAND AND MINES**  
**COAL**—On P. R. R. in Jeff Co. Pa. 5 ft. seam of Coal. 400 acres. Royalty or acreage. Address Alex. Waite, Reynoldsville, Pa.

**FOR SALE**—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil write Cavanagh, McAlester, Okla

**CLAY PROPERTIES**  
**LARGE BRICK CLAY PROPERTY.**  
Favorably located directly on railroad and on bricked highway, eight miles west of Newberne, N. C.; adapted for high-grade brick, tile and other clay products. Has been examined and recommended by an eminent engineer as being unusually meritorious. Report will be furnished to interested parties. Owners will accept part payment in securities of properly financed and managed company. Thomas B. Hammer, Owner, Philadelphia, Pa.

**TIMBER**  
**TIMBER FOR SALE.**  
From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

**LATH AND TOBACCO STAVE TIMBER**  
**FOR SALE**—10,000 to 15,000 cords standing timber on N. S. R. R., near Newbern, N. C. Will sell by the cord with cash advance. Fine opportunity for laths or tobacco stave factories. Thos. B. Hammer, Phila., Pa.

**500 ACRES** of timber, chestnut, poplar, hickory, oak, some heavy tank bark, thousands of locust posts, etc. Within mile and a half of Railway. Will sell the timber for 5,000 now, and give time satisfactory to buyer for taking it off. Terms if desired. We are too busy in the orchards to handle it and we need more money in our business. Albemarle Orchard Co., Inc., Charlottesville, Va.

**TIMBER OPERATION**  
**FOR SALE**—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 5700, care Manufacturers Record, Balto., Md

**LUMBER AND BUILDING MATERIAL**  
**WHEN IN NEED** of flooring, ceiling, siding, finish, roofers, lath, shingles and dimension; write Stephens Lumber Co., Jacksonville, Fla.; 50 E. 42d St., New York city, or Hibernia Bank Bldg., New Orleans, La.

**PILING — POLES — TIES** — For Sale. All Southern woods. We solicit large contracts. Heavy stocks carried at all times. **QUICK SHIPMENTS — GRADES GUARANTEED THE BEST.** Hall Bros. Cedar Co., Jacksonville, Texas.

**WHITE AND YELLOW PINE LATH**—For sale f. o. b. Charlottesville, Va. 32 inches, \$3.00; 4 foot, \$5.50; 5 foot, \$6.50; 6 foot, \$8.00; all standard thickness and width. Special cut of dimension. Stock quoted on request. Addington Lath Mfg. Co., Woodridge, Va.

**TIMBER LAND**  
We must sell at once 18,000 acres gum timber suitable for pulp manufacturers, additional acreage adjoining can be purchased from original owners; this property is on deep water, and is accessible for water and rail shipments to Northern Ports. For further information wire or write Clarence C. Phillips & Bro., Georgetown, S. C.

**BARGAIN IN FLORIDA TIMBER LAND**—34,560 acres virgin pine and cypress, over hundred million feet never cut nor turpented. Rail and water convenient. Good land for colonization, \$8.00 per acre, in fee.

**FARM AND TIMBER LAND**  
**OHIO**—15 million feet timber, 2-3 spruce, balance fir, cedar, etc. Northwest of Seattle. Fine smooth land on good road. Land and timber \$60,000. Some exchange accepted. Owner, G. W. Fenster, Dupont, Ohio.

**PECANS AND PECAN TREES**  
**FINE PECANS**—For 43 years Sam H. James, of Mound, Louisiana, has been growing fine pecans. He has won five gold medals at world's fairs. He will have 40,000 pounds for sale this fall, also budded pecan trees. He furnishes many of the wealthiest and most distinguished men of the nation with their eating pecans.

**CITY PROPERTY**  
**AT MUSCLE SHOALS, ALA.**—For Sale: 17½ acres suitable for building lots or plant site, on state road, 1 mile from Wilson Dam on Tennessee River 1½ miles from L. & N. R. R., and 1 mile from city limits, Florence, Ala. For price and terms Address 5867 care Manufacturers Record.

**SUBURBAN PROPERTY**  
**FOR SALE**—40 acres good land joining corporate limits of Hope, Arkansas, pop. about 5000, growing. Can be divided into town lots and sold at big profit. Five minute drive from heart of town. An excellent investment. Price \$6000, for short time only. Write R. W. Hule Jr., Arkadelphia, Ark.

## FRUIT, FARM AND TRUCK LANDS

**FLORIDA**  
**FLORIDA.** — Did you ever think about Florida strawberries—marketed December to May—potatoes, cabbage, lettuce, celery, etc., and the high prices they bring? We also ship in trainload the best oranges and finest grapefruit in the world. Send for 1921 list of groves and farms. Tampa-West Coast Realty Co., Inc., opposite Postoffice, Tampa, Fla.

**FOR SALE**—Everglade muck lands along the Tamiami Trail, also lots in Tamiami Township, 28 miles west of Miami. An investment opportunity worth investigating. Realty Securities Corporation, Miami, Fla.

**GEORGIA**  
**FOR SALE**—103 acres of valuable farm land, 65 acres in cultivation, all under fence, in heart of melon section, one mile from Brooklet, Ga.; also one 6-room dwelling, well built, in Brooklet, Ga. This town is noted for good school and churches. Write me for prices. Paul B. Lewis, Claxton, Ga.

**PEACH ORCHARD** for sale at Fort Valley, Ga. 16,000 bearing trees from four to eight years old; 330 acres land. Nice six-room dwelling house and four tenant houses. On public road and side track. For further information, price and terms write to J. M. Bass Co., Fourth National Bk. Bldg., Macon, Ga.

**ILLINOIS**  
**FARM**—Near Normal College; 100 acres; good loam 75 for crops, 25 white oak timber; will cut 100,000 feet; dwelling, barn, orchard, fencing; paved road will pass place; \$75 per acre; terms: include crops; worth double. J. N. Williams, Gorham, Ill.

**TENNESSEE**  
**FOR SALE**—289 acres, 200 in cultivation, balance blue grass, level and rich opposite station on main line railroad, near Dixie Highway, twenty-five miles from Nashville, well watered by springs, mineral wells and river. Easy terms. Address Owner, C. J. Jackson, 1000 Crescent Ave., Birmingham, Ala.

**VIRGINIA**  
**FOR SALE OR EXCHANGE**—One of the best 500-acre grazing and stock farms in Virginia. Will take as part payment city property or coal land. Address No. 5827, care Manufacturers Record, Baltimore, Md.

**FOR SALE**—Virginia: in Buckingham Co.; 1854 acres, well wooded and watered. Land broken and undulating, lying about two miles from James river and Chesapeake and Ohio R. R. Fine fruit growing section Opportunity for commercial orchard. Excellent lot of land for colonization. Timber, Railroad ties and cord wood ought to pay a large part of purchase price. Richmond Trust Company, Real Estate Department, 7th & Main Sts. Richmond, Virginia.

**WEST VIRGINIA**  
**FOR SALE—PRICE, CASH \$20,000.**  
Thirty-two-acre fruit and poultry farm, two miles from city, good road, hundred yards from good school. Fruit of all kinds, profitably bearing. Finest poultry plant in State. Beautiful and healthful location. Residence practically new. Quick buyer can secure bargain in tractor outfit, implements, lots of poultry, etc. Good opportunity for speculation. Don't write unless you mean cash business. Apply to Henry J. Little, 210 W. John street, Martinsburg, W. Va.

**THE BEAUTIFUL SHENANDOAH VALLEY.**  
Fine homes, fine farms, and it and the Eastern Panhandle of West Virginia the best orchard land in the world; convenient to the best markets. Write me for information. S. S. Felker, Public Square, Martinsburg, W. Va.

**DITCHING**  
**DITCHING.**  
Austin No. 0 machine digs for pipe lines 16 feet deep, 20 to 40 inches wide. For drainage it gives banks half-to-one slope, any depth to 6 feet, with 23-inch bottom. When 6 feet deep the top width is 8 feet. 1 dig by yard or lineal foot, or will furnish crew and work by the day. Best work at reasonable prices. References furnished. Machine now available. J. C. Stancil, Smithfield, N. C.

**BUSINESS OPPORTUNITIES**  
**FOR SALE**—Lumber Milling Proposition, 5,000 acres in fee, complete equipment, now in operation. West Virginia. 15,000,000 feet of timber, 500,000 feet now on stick. This property will be sold at a bargain. Address Jno. C. Chidester, Weston, West Virginia.

**I SPECIALIZE** in industrial, warehouse and business sites at and adjacent to Washington, D. C.  
**M. B. HARLOW**, Colorado Building, Alexandria, Va. Washington, D. C.

**WANTED**—A good-sized block of high grade stock of exceptional earning possibilities to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway, New York. Established 1894.

**WANTED—RESPONSIBLE PARTY** with \$50,000 to join in one of the safest and best real estate deals. Two to three hundred per cent profit. Unless you mean business do not answer. Will stand the strictest examination. Address No. 5826, care Manufacturers Record, Baltimore, Md.

**FOR SALE**—Patent for multiple ticket punch. One punch does the work of four or more. Punches destination, limit, half ticket, baggage, etc. Dies stationary or removable. Also may be used for commercial purposes. P. O. Box 167, Richmond, Va.

**PULLMAN BERTHS.** We have 100 Pullman berths complete, suitable for summer camps and camp cars. Will sell cheap. Southern Iron & Equipment Co., 218 Grant Building, Atlanta, Ga.

**WANTED TO EXCHANGE** 7,500 acres excellent undeveloped Michigan farm land, for a going crushed stone or gravel or brick business. Cash or time for difference. H. R. Garden, Salem, Va.



## BUSINESS OPPORTUNITIES

FURNITURE or hardware stock wanted for 3,000-acre tract Central Florida Land. Solid block. On hard road near R. R. W. A. Kleffer, 4615 Forest Ave., Kansas City, Mo.

AN EXPIRING contract with a well-known firm affords the sale of engineering patents. Address, James Naylor, Arlington, N. J.

MY ASSOCIATIONS with responsible New York Underwriters enables me to prepare your propositions in a manner which will demand their serious consideration. Attorney Alfred S. Perry, Fairfield, Conn.

We have a thoroughly equipped bake shop also several properties located in or near the heart of the business district. If you are interested in opportunities along the above lines communicate with us and receive further details. Bouton & Cermak, Realty Brokers, 519 Central Ave., St. Petersburg, Fla.

FOR SALE—Active old established, well paying manufacturing plant, sash doors, millwork, remilling plant, lumber and general building material. Sales for 1920 one and one-half million dollars. Best location in state of Florida. Buyer must have at least \$100,000 cash or its equivalent and convince seller he knows the business that it might be successfully carried on. Business now good. If interested address No. 5863 care Manufacturers Record, Balto. Md.

## PATENT ATTORNEYS

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INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandler, 412 7th St. N. W., Washington, D. C.

## BUSINESS PROPERTY

WASHINGTON, D. C.

WE SPECIALIZE IN

Choice Chain Stores,  
Railroad Sidings and Warehouses.  
Business Properties.

WEAVER BROS., 735 15th Street N. W.

## FACTORY SITES

FREE—12-acre factory site nine miles from Huntington on hard road, C. & O. Railroad, electric power line and gas line. Land is level above high water mark. Griffith & Company, Box 1165, Huntington, W. Va.

## FACTORY SITES

BALTIMORE

FACTORY

SITES

William Martien & Company.

1413 Lexington Bldg.,

Baltimore, Md

ADA, OKLAHOMA FACTORY SITES FREE

CHEAP NATURAL GAS FOR FUEL

PLENTY OF PURE SPRING WATER

TWELVE DIFFERENT RAW MATERIALS

THE BEST LIVING CONDITIONS

EXCELLENT TRANSPORTATION FACILITIES

INVESTIGATION INVITED BY CHAMBER OF COMMERCE.

FOR SALE—Ideal factory site, fronts on river and main line railroad, long siding, near Dixie Highway, best part of Tennessee. Address Owner, C. J. Jackson, 1000 Crescent Avenue, Birmingham, Alabama.

## INDUSTRIAL PLANTS FOR SALE

COTTON MILL

SOUTHERN COTTON MILLS.  
We have for sale two cotton mills.

One of 40,000 spindles.

One of 4200 spindles.

Write or wire for particulars.  
F. C. ABBOTT & CO.,  
Trust Building, Charlotte.

TOY FACTORY

FOR SALE—Factory manufacturing patented, mechanical wooden toys, thoroughly equipped, plenty trained labor. Toys are a success, and are being handled by biggest toy houses in America. Plant can be moved at small expense to another city. Splendid opportunity. For particulars, write Lock Box No. 67, Cambridge, Maryland.

FACTORY BUILDING

FOR SALE or rent, factory building, 10,000 square feet floor space and ample site, on trunk railroad, suitable for furniture making or any kind of wood working, and other uses, near 20½ square miles industrial site of United States Steel Corporation, being developed as their Gulf manufacturing and export terminal. Gulf Realty Co., Mobile, Ala.

LIGHT AND POWER PLANT

ELECTRIC LIGHT AND POWER PLANT, consisting of two American Ball units, direct connected to slide valve engines, fly wheel governor, piston 11 in.; stroke 10 in. rev. 315; 32½ k.w. 125 v. 280 amp.; complete switch board with instruments, 100 h.p. boiler 100 lb. pressure, pump heater and 65 ft. stack; now in use; can be seen at any time; delivery about Oct. 1st; this plant is in perfect condition. A. M. Williams, Palace Merry-go-Round, Lake Avenue, Asbury Park, N. J.

## EQUIPMENT INSPECTION

CARL HILL

EQUIPMENT INSPECTOR

HAVE YOUR inspections made at a minimum cost by a practical mechanical man of over twenty years' experience. loco motives, cars, machinery, and all railroad equipment a specialty. Your interest will be protected. Box 269, Altavista, Va.

## INFORMATION WANTED.

What is the latest available authentic information worth to you? General information bureau; general research work; briefs; digests; codifications and abstracts. Material for essays, debates, theses, sermons, speeches, lectures, arguments, addresses, editorials, and special articles on any subject and for any occasion. Card, analytical, intensive and general index work. Concordances. If you want thorough, conscientious, individual, expert work procure the services of Wm. McAfee Goodwin, District National Bank Building, 1406 G St., N. W., Washington, D. C.

## INDUSTRIES WANTED

YOU WILL TRAIN with a live crowd when you locate your factory in Hattiesburg, Miss. For details write the Chamber of Commerce.

## PRINTING AND EMBOSsing

BETTER PRINTING for less money. Printing users send for free samples and standardized prices of a thousand items. E. Fantus Co., Printers 523 S. Dearborn St., Chicago, Ill.

## INCORPORATING COMPANIES

ARE YOU GOING TO INCORPORATE—reorganize or consolidate, are you planning to promote or finance any proposition? If so, write us for particulars. We render service everywhere.

National Legal Service Company,  
Suite 436, Ridge Building,  
Kansas City, Missouri.

## FINANCIAL

"THE Betrayal of the People in the Federal Reserve Act," T. Cushing Daniel, author. This "International Bankers' Gold Basis Scheme" has produced and can produce nothing but disaster. Read the remedy in this book and act at once to protect your business, your family and your country. Popular Edition, 25 cents. The Monetary Educational Bureau, 1416 F Street, Washington.

"FOR SALE—Second Mortgage Notes on Georgia Hotel Property. Property worth five times amount of first mortgage. Notes endorsed by responsible parties. All payable within three and half years. It interested write A. M. Walkup Company, Inc. Richmond, Va."

## SITUATIONS WANTED

EXECUTIVE—With manufacturing concern, textile preferred. Experienced designer accountant, traffic manager, office manager, purchasing agent, real estate manager. Age 44. Graduate high school, business school and textile school, also student of modern business methods. Desire for larger opportunities is reason for making change. Address No. 5866 care Manufacturers Record, Balto. Md.

THE SECY-TREAS. and Mgr of a small manufacturing plant desires to make change in the near future. He can show a record of successful operation during the recent depression and wishes to make permanent connection with better future than is afforded in his present position. Address No. 5862 care Manufacturers Record, Balto. Md.

YOUNG MAN twenty-two years of age desires connection with old established and reliable concern that will require little or no traveling. Now head of one Company and Traveling Sales Manager for another in larger Company. Eight years experience in handling correspondence, directing men and increasing sales. Marrying and wishes to quit road, hence desire to change. Best references furnished. Address No. 5858 Manufacturers Record.

CONSTRUCTION superintendent, experienced carpenter by trade, 37 years of age, twelve years as superintendent with last contractor specialized on industrial buildings; can handle all branches of construction and furnish A-1 reference. Good executive and get good results; location immaterial. Address Supt., 139 Cedar Street, Springfield, Mass.

SALES CORRESPONDENT experienced in sales department, promotion work through salesmen and agencies in executive capacity for leading manufacturer in middle west; also experienced in advertising, catalogue compilation, etc. related to power plant equipment. Further particulars and references on request. Address 5869 Manufacturers Record, Baltimore, Md.

## AGENCIES WANTED

ATTENTION

SPECIALTY MANUFACTURERS

We want an article of merit that is a proven seller to sell in Texas and Republic of Mexico. We have a well organized sales force and can produce the business. Write at once to.

AZTEC BROKERAGE CO  
209 S. W. Life Bldg., Dallas, Texas.



AGENCIES WANTED

WE HAVE experienced men and ample storage space. Want to hear from reliable manufacturers of soda fountain supplies. Also fixtures and accessories. We finance our own sales—if required—Territory desired Virginia and the Carolinas can furnish desired references. Address, P. O. Box 891, Richmond, Va.

MEN WANTED

WANTED—Energetic salesman for Baltimore and vicinity to handle a well-known and well-advertised line of elevator safety gates, fire doors, and hardware specialties. Address No. 5846, care Manufacturers Record, Baltimore, Md.

EXECUTIVES AND ASSISTANTS seeking responsibilities in designing offices, industrial engineering, factory management, power distribution, public utilities supervision, manufacturing production and sales promotion will find the "Burroughs" proposal letters combined with permanent advisory personnel work, international in extent, covering your preferred city, State or group of states in particular, effective for substantial re-engagements. American Service Company, Pittsburgh.

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such position: executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. E. W. Bixby, Inc., 303 Lockwood Bldg., Buffalo, New York.

MEN WANTED

WANTED  
A REAL SALESMAN

Here's a big job for a big salesman! We want a live-wire who can go out and get more than his share of all the business in his field—and then dig up new markets. He must be a salesman who can point to big things he has accomplished—of convincing personality and a hustler. Previous experience in paper manufacturing industry will help him, but is not necessary.

The man we want has been earning at least \$7,500 a year. To the right man this job will be only a stepping-stone to bigger opportunities with us.

The man we want will naturally want to know something about us. We are a big nationally-known organization and the biggest in our line.

If you like a difficult proposition, if you aren't afraid of work, if you believe you can handle this job, write us about yourself and your experience, naming salary desired. Your letter will be kept in strict confidence.

Address No. 5870 care Manufacturers Record.

MACHINERY AND SUPPLIES

PIPE FITTINGS, valves, electric wire contractors' blocks, etc. Low prices. Pratt Thompson, 220 E. Lexington St., Baltimore, Md.

ONE 10-ton Holt "Caterpillar" tractor, and 10-24 in. disc plow. Excellent condition; price reasonable. Address Wright's Bend Plantation, Columbus, Ga.

MACHINERY AND SUPPLIES

DRILLS HIGH SPEED 40 per cent. off, carbon 70 per cent. off. Pipe taps 50 per cent. off. Limited quantity. Wood rasps 70 per cent. off. Machinery Clearing House Corp., 718 E. Pratt St., Baltimore, Md.

ROAD ROLLER, 2-wheel, 10-ton Russell with compound engine, 150-lb. pressure boiler, used about ninety days, overhauled, tested, painted and practically new. Price, \$1,800 F. O. B. Wytheville. Other ROAD MACHINERY bargains. R. P. Johnson, Wytheville, Va.

BOILERS FOR SALE

4-512 H. P. Class 5-26 Stirling Boilers—Hand Fired Practically new—100 lb. working pressure.

WILSON & CO.

Purch. Dept.

41st & Ashland Ave.

Chicago, Ill.

FOR SALE.

1—8x12 belt driven Norwalk air compressor, 100 lbs. pressure, 160 cu. feet air. Machine in first-class condition.

E. O. GRIFFIN SUPPLY CO.,  
303 Carter Bldg. Houston, Texas.

MACHINERY AND SUPPLIES WANTED

WANTED—To buy a second-hand gyratory crusher No. 3 or No. 4, with screen and elevators, in good working order. L. Kohly, Villa Hortensia, Fuente Almendares, Havana, Cuba.

## What do you really *know* about these things? How much *should* you know about them to be a really good American?

### Did any country ever have real Free Trade?

What is the difference between a protective tariff and a non-protective tariff? Was president Cleveland right or wrong in declaring that the tariff is a tax, the amount of which is added to the cost of the article.

Under a high protective tariff do goods become poorer and dearer or better and cheaper? Why? Is there any relation between the tariff and the "trusts"? How do you know? Is selling goods abroad cheaper than at home the rule or the exception? How do you know? Are all kinds of foreign commerce desirable? How can the desirable be separated from the detrimental?

### Should we have a large Merchant Marine?

Why? Should our ships be built in this country or in other countries? What difference does it make? Should our merchant ships be operated by the government or by private corporations? Why? Should our shipcrews be Americans, or foreigners, or both? Why?

Just what is the difference between Open and Closed Shops? Which kind is more likely to promote fair and friendly relations between employers and employees? Why? Which kind is more likely to promote the interest of the public? What makes you think so?

### Is "the Melting Pot" working satisfactorily?

What should be done about the matter?

Do you fully realize that Wise Public Action is based on informed Public Opinion? Are you doing your part by becoming really well informed on public questions?

To do your full duty to the Great Republic you should buy and read and tell your friends about the newest and incomparably the best book on these problems:

### "PROTECTION OUR PROPER PERMANENT POLICY"

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formerly Congressman from Minnesota, Assistant Postmaster General in the Roosevelt Administration and Secretary of the American Iron and Steel Institute.

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"It will prove interesting to the novice and informing to the expert."—Former Congressman J. C. Sibley, Franklin, Pa. "Undoubtedly the most valuable contribution on that line ever given the American People."—St. Cloud, Minn., Daily Journal Press. "Unquestionably the best and most elucidating treatment of the subject ever put in book form."—Leslie M. Shaw, Former Governor of Iowa and Secretary of the Treasury in the Roosevelt Administration. "I look upon this book as a mine of wealth."—United States Senator W. P. Dillingham of Vermont.

Price \$3.50 in U. S., \$4.00 Elsewhere. Postage Prepaid.

Address: Manufacturers Record, Baltimore, Md.



## To the MANUFACTURER and DISTRIBUTOR

Abundant supplies of coal, coke, iron, timber and other raw materials lie in the regions of Georgia and Alabama, which are traversed by the

## Central of Georgia Railway

Cheap electric power, numerous undeveloped water-powers, good home markets and excellent shipping facilities. Therefore, manufacturing conditions are ideal.

Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branchhouses in these cities.

Full and detailed information upon application.

**J. M. MALLORY, Industrial Agent**  
SAVANNAH, GEORGIA

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*(The Atlantic City of the South)*

## NEEDS HOTELS AND APARTMENTS

We have: A fast growing community—  
—30 miles of the finest beach in the world.

—90 miles of ocean and River Shore Line  
offering finest building sites.

—a population the year around of 10,000.  
—a popular tourist resort, and facilities.  
Best drinking water and wonderful climate.

The most attractive summer and winter point  
in Florida

Address—

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## FOR SALE BALTIMORE PEARL HOMINY COMPANY SEABOARD CORN MILLS

Business Established in 1843.  
Ideal Rail and Water Location. SEVEN ACRES on  
Baltimore & Ohio Railroad and Baltimore Harbor.  
Private Railroad Sidings. 50 Car Capacity.  
1200 FEET AVAILABLE FOR PIER SPACE.  
CORN AND FEED MILLS RECENTLY EQUIPPED  
WITH NEW MACHINERY HAVING A DAILY  
CAPACITY OF 15,000 BUSHELS.  
CORN SYRUP PLANT, DAILY CAPACITY  
100 BARRELS.  
CRUDE CORN OIL EQUIPMENT AND REFINED  
OIL PLANT.  
50,000 Bushel CONCRETE ELEVATOR fully equipped  
for drying and handling grain.  
50,000 Bushel STEEL STORAGE ELEVATOR.  
50,000 Bushel STORAGE CRIB.  
ONE LARGE WAREHOUSE AND SEVERAL  
OTHER BUILDINGS.

The equipment is all of the latest model, in good condition, and ready to operate.

MORE THAN HALF THE SITE is available for development for any character of manufacturing business requiring deep water and rail facilities.

Interested persons are invited to inspect this plant, or particulars will be mailed on request made of the Trustees.

Bids for the entire property are invited.  
All bids to be in writing, sealed and addressed to the Trustees. Bids will be opened at the office of the Baltimore Pearl Hominy Company, Howard and Stockholm Streets, Baltimore, Maryland, on the 15th of September, 1921, at 12 o'clock noon.

TERMS:—Cash, or part cash and part deferred payments bearing interest. Those tendering deferred payments must give full details thereof.

The right is reserved to reject any or all bids.

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Attorneys for the  
Trustees.

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Trustees in Bankruptcy  
for the Baltimore Pearl  
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W. O. PIERSON,

## FOR SALE Small Soil Pipe Foundry

Equipment complete. Everything new and up-to-date. Only operated a few months. Will sell pipe and fittings equipment separately. Fine proposition for some one.

**COLUMBUS TRUCK & SUPPLY MFG. CO.**  
Columbus, Ga.

## EVERY THURSDAY

is the publication day of the **MANUFACTURERS RECORD**. Changes of copy must reach us eight days in advance, and when proofs are required fifteen days are necessary.

## Limestone Quarry For Sale

As attorneys for The Interstate Lime Corporation, we have been directed to make sale of all the properties of this company due to the death of the general manager and one of the largest stockholders, and the property will be offered at a bargain. The other stockholders are not situated to handle the proposition. The property consists of one of the most valuable quarries in the State of Tennessee, located at Elcanah, on the Southern Railroad. Is fully equipped with machinery for grinding, lime kilns, engines, locomotives, standard gauge railroad connecting with main track owned by the company. The entire output of this plant can be disposed of to the Southern and C. C. & O. railroads at a price to yield a large profit. If interested, write us immediately.

**PENNINGTON, PRICE & JONES**  
Bristol, Virginia



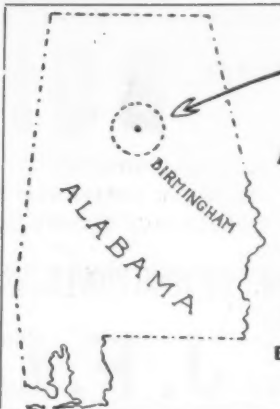
**TRAVEL BY SEA**  
**MERCHANTS & MINERS TRANSPORTATION CO.**  
 Established 1854  
 Millions of Passengers Carried--Not a Life Lost  
 Regular Sailings Serving  
 BALTIMORE NOR OLK BOSTON  
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**We Want MANUFACTURERS**  
 Can Offer Plenty of Labor  
 A Delightful Climate; Adequate Railroad Facilities.  
 Write us for further information  
**J. I. RHODES, Chairman**  
 Finance and Industrial Committee  
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We offer specially 1--6 foot radial drill motor drive.

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 Second-hand Electric Motors Bought, Sold and Exchanged.  
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 27--18x36 Heavy Duty, Allis-Chalmers Corliss Engines, both right hand and left hand. 350 H. P. at 125 r. p. m. 11 ft. by 32 inches. Band wheel. Operated on 140-lb. steam pressure, 1½ inch gauge back pressure, double eccentric.  
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2--24" x 14' "Reed-Prentice" all geared head, quick change gear, taper attachment, motor drive.

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50 K. W. Westinghouse 2300-V. and Shepard Compound Auto Engine.  
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Steam Engine Generator Sets,  
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Our erecting engineers are at your service.

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1—78" x 20' 125-lbs. working Pressure,  
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**LOCOMOTIVE TYPE BOILERS**

1—150 H.P. Economic,  
6—80 H.P. New Water Front open Bottom,

**HOISTING ENGINES**

2—9  $\frac{1}{2}$ " x 12" Lambert D.C.D.D. with A.S.M.E. Boiler,  
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3—9" x 10" Mead-Morrison 3-Drum Skeleton,  
1—8  $\frac{1}{2}$ " x 12" Contractors Plant 3-Drum Skeleton,  
2—30 H.P. Lidgerwood D.D. Gasoline,  
2—8  $\frac{1}{4}$ " x 10" D.C.D.D. Skeleton,  
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Many smaller sizes,

Pumps, Steam-Triplex-Centrifugal, almost every size and for every duty.

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**Turbo Generators**

2 1000 K. W. General Electric Turbo Generators, Curtis Turbine, single stage, non-condensing, 175 pounds steam pressure—6600 volts, 3 phase, 60 cycles 3600 R. P. M., 80% power factor.

These Generators are in perfect condition.

Sales Department

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Two (2) 338 HP. Heine Water Tube Boilers, pressure allowed last inspection 200 lbs., single drum type, hand fired, complete with Bayer Soot Blowers, full front, full set of castings, and steam trimmings. Immediate shipment. An unusual opportunity to secure a pair of high grade boilers at an exceptionally low figure.

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## FOR SALE Used Machinery in Stock at Richmond, Va.

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- 2— 200 HP H. R. T. A. S. M. E. 125 lbs.
- 2— 175 HP H. R. T. 125 lbs.
- 1— 45 HP H. R. T. 100 lbs.
- 1— 150 HP Locomotive type.
- 1— 120 HP Locomotive type.
- 1— 40 HP Loco. type 100 lbs.
- 1— 40 HP Loco. type, on wheels with engine mounted, 150 lbs.
- 1— 5 HP Frick, on wheels.

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- 20— 36", 4 yd. Western Side Dump.
- 11— 18", 24 cu. ft. new steel shaft mine.
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- 2— 36" flats.

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- 1— Steam driven, 296 cu. ft.
- 1— Steam driven, 909 cu. ft.

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- 1— 5 ton Yale and Towne.
- 1— 10 ton.

### Crushers.

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- 1— No. 6 McCully.

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- 1— 24" x 28" Corliss.
- 1— 18" x 42" Corliss.
- 1— 12" x 18" Center Crank.
- 1— 7" x 10" Center Crank.
- 1— 18" x 18" R. H. Side Crank.

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- 1— Mundy, S. D. D. C. link motion, 50 HP.
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- 10— 19" x 8' LeBlond, quick change gears.

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- 10 ton, 36" gauge, Baldwin, saddle tank.

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- 25 tons No. 1, 60 lb. Relays.
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- 100 ton R. R. Scale, Belt & Chain Bucket Conveyors, Screens, Concrete Mixers, Oil Engines, Pumps, Dericks, Irons, Wire Rope, Tripod Drills, Stone Surfacing Machines, Plug Drill and Air Hammers, Phillips Crossover Dump, Steam Radiators, Pipe, Boiler Tubes, Double Log Washer, Shafting, Pulleys, Belt, Etc.

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- 1— 1400 hp. Westinghouse Type C. W. Slip-ring Rolling-mill type Motor, 3-ph., 60-cy., 2300 volts, 505 r.p.m., with magnetic control panel complete. This motor is brand new and in original crate.
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- 1— 750 hp. New Allis-Chalmers, 3-ph., 60-cy., 2200 volts, slip-ring, 505 r.p.m., with starter.
- 1— 300 hp. New Allis-Chalmers, 3-ph., 25-cy., 440 volts, 485 r.p.m., slip-ring induction type, with drum control.
- 1— 250 hp. New G. E., 3-ph., 60-cy., 550 volts, 600 r.p.m., squirrel cage, 40 degrees.
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- 1— 250 hp. Allis-Chalmers, brand new, 3-ph., 60-cy., 2200 volts, 514 r.p.m., slip-ring induction motor, with Westinghouse primary, Cutler-Hammer secondary starter.
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- 200 Motors, ranging from 7 1/2 to 75 hp., 3-ph., 60-cy., 550 volts, 41-degree motors, with controllers, at prices which will enable dealers with rebuilding-shop facilities to purchase, rebuild and sell at a profit. Detailed list mailed upon request.

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- 1— 500 kw. G. E., same as above, 375 r.p.m.
- 2— 1250 kva. G. E. 3-ph., 25-cy., 6600 volts, 375 r. p. m. motor type ATI to AC generator AQB, 5400/2700 volts, now 2-ph., reconnectable for 3-ph., 2300 volts, 62 1/2-cy., with direct connected exciter. Located near New York.
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Complete with all fixtures and fittings except lower half fronts and grates. Operated at 150 lb. pressure.

### Two 400 Hp. Erie City Vertical Boilers—150 lb. A. S. M. E.

Blue Prints and Insurance Inspection Reports Cheerfully Furnished.  
Boilers Set in Batteries of Two Each.

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# ELECTRIC MOTORS—TRY US REAL BARGAINS

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MOTORS 208 CENTER ST., N.Y. DYNAMOS & CO.

## A. C. GENERATORS

1—25 KW General Electric, 3 phase, 60 cycles, 110 volts, 1,800 R. P. M.  
1—150 KW Western Electric, 3 phase, 60 cycles, 2,300 volts, 900 R. P. M.  
1—300 KW Westinghouse, three bearing type, phase, 60 cycles, 2,300 volts, 514 R. P. M.

### A. C. MOTORS 3 PHASE, 60 CYCLES

1—15 H. P. Allis-Chalmers, 220 volts, 1,800 R. P. M.  
1—15 H. P. General Electric, 220 volts, 1,800 R. P. M.  
3—20 H. P. Allis-Chalmers, 22 volts, 860 R. P. M.  
1—60 H. P. General Electric, slip ring, 2,200 volts, 1,150 R. P. M.  
1—75 H. P. Westinghouse, 220-440 volts, 860 R. P. M.  
1—100 H. P. Westinghouse, 220-440 volts, 860 R. P. M.

The above complete and in first-class operative condition.

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ATLANTA, GEORGIA

## 30 KW A.C. Generator

General Electric, type ATB, 3 phase, 60 cycle, 240 volt, 1200 r. p. m. with 1½ KW Exciter mounted on shaft. This apparatus is like new throughout and priced for quick sale at \$600.00 f. o. b. Philadelphia.

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Quan.	H.P.	V.	R.P.M.	Type	Make
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1	40	220	1200	B	Fairbanks-Morse.
1	40	220	1200	H	Fairbanks-Morse.
1	40	440	900	H	Fairbanks-Morse.
1	50	440	900	H	Fairbanks-Morse.
1	50	220	1200	H	Fairbanks-Morse.
1	50	440	850	AN	Allis-Chalmers.
1	75	440	900	B	Fairbanks-Morse.
1	75	220	865	AN	Allis-Chalmers.
1	150	2200	600	Q	Crocker-Wheeler.

**GEO. F. MOTTER'S SONS**  
Steam and Electrical Engineers  
YORK, PA.

## SPECIAL

1—300 H.P. Westinghouse, CX, 3 Phase, 60 cycle, 220/440 V. 600 R.P.M. motor.  
1—250 H.P. Westinghouse, C, 3 Phase, 30 cycle, 220/440 V. 600 R.P.M. motor.  
1—250 H.P. Crocker Wheeler, 3 Phase, 60 cycle, 585 R.P.M. motor, 220/440 V.  
1—200 H.P. Westinghouse, C, 3 Phase, 60 cycle, 600 R.P.M. motor, 220/440 V.  
1—250 H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 R.P.M.  
1—200 H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 R.P.M.  
1—100 H.P. Crocker Wheeler, 3 Phase, 60 cycle, 2200 V. 720 R.P.M.

**Motors, Generators, Engines, Air  
Compressors, Tanks, Boilers, Hoists, etc.**  
**W. A. CARRELL & COMPANY**

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DYNAMOS, MOTORS AND  
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PUMPS AND AIR COM-  
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MACHINE TOOLS,  
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LARGE STOCK OF NEW AND USED  
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### MOTORS

1—100 H. P. Crocker-Wheeler, 2200 volts, 60-cycle, 3-phase, slip-  
ring, 690 R. P. M.

### GENERATORS

1—150 K. W. D. C. Crocker-Wheeler, 250 volts, 200 R. P. M.,  
engine type.  
1—200 K. W. D. C. General Electric, 200 R. P. M., 3-wire, 125  
to 250 volts, with engine.  
1—250 K. W. Bullock, 220-250 volts, direct current, 450 R. P.  
M., 3-bearing.

### ENGINES

13 and 22½x30" Buckeye 16½x30" Buckeye  
12x16" Buckeye 12 and 21 x27" Buckeye 18½x24" Buckeye

### WATER TUBE BOILERS

4—264 H. P. B. & W., 150 lbs., Ohio.  
3—250 H. P. Franklin, 125 lbs. pressure.  
1—400 H. P. B. & W., 150 lbs., Iowa.

### AIR COMPRESSORS

1—18x18" Duplex, belt-driven. 2—23 and 13x20" Sullivan, belt-  
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Other steam and belt-driven compressors on demand.

### CONDENSER

1—12 and 20x21 Blake Single-cylinder Jet Condenser, brass fitted.



**PIPE****ALL SIZES SECOND-HAND  
FOR ALL PURPOSES**

Furnished with new threads and couplings or cut to specifications.

**Fittings, Valves, etc.**

We have modern equipment and are prepared to make prompt shipments.

**JAMES F. GRIFFITH****412-24 Moyer Street  
Philadelphia, Pa.**

Pipe, all sizes, bought and sold. What sizes are you in the market for? What sizes have you for sale?

**PIPE & CONTRACTORS' SUPPLY CO.****3 Dover Street - - - NEW YORK****FOR SALE  
PIPE SECOND-HAND All Sizes 1/4" to 24"**

Furnished with new threads and couplings, suitable for every practical purpose.

Also large assortment of Contractors' Equipment, Hoisting Engines, Boilers, Concrete Mixers, etc.; all thoroughly overhauled.

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Equipment at "Quick Sale Prices"**

Everything to furnish a complete Club or Commissary. Pool Tables, Bowling Alleys, Soda Fountains, etc. Counters, Scales, Refrigerators, etc. Also Boilers, Filtration Plants, Telephone and Electrical Equipment.

We can Sell to you, or Sell for you.

**WILSON-HOCK COMPANY,****"Sales Service" City Point, Virginia.****FOR SALE  
ALTERNATOR**

50 kw., 3 phase, 2,300 volt, 60 cycle, 1,200 r.p.m., General Electric Revolving Field, late type with belt-driven exciter and switchboard. Guaranteed in perfect condition. For immediate delivery and priced to move at \$650.

**EDISTO PUBLIC SERVICE COMPANY**

Denmark, S. C.

**PUMPS****Motor Driven Centrifugal:**

10-14-in. Worthington, Class B double suction 8,600 G. P. M. at 152 ft.

4-14-in. Allis-Chalmers Type S. 7,500 G. P. M. at 130 ft.

2-10-in. Allis Chalmers Type S. 3,750 G. P. M. at 130 ft.

2-8-in.—Allis Chalmers Type S. 1,850 G. P. M. at 150 ft.

3-6-in. A. W. W., 1,000 G. P. M. at 125 lbs.

**Steam Driven Centrifugal:**

6-16-in. Allis Chalmers Type S. 8,500 G. P. M. at 90 ft.

6-14-in. Allis Chalmers Type S. 6,500 G. P. M. at 150 ft.

**Steam Driven Hydraulic:**

6-14 &amp; 20x7 1/2 x 18 Worthington Compound Duplex, 400 G. P. M. at 300 lbs.

10-25 &amp; 38x4 1/2 x 24 Worthington Tandem Duplex, 150 G. P. M. at 3,600 lbs.

2-20x12x16 Worthington Duplex Fire Pumps, 1,500 G. P. M.

**Boiler Feed Pumps:**

200—New and used Worthington Boiler Feed Pumps, various sizes.

Write for specifications and prices.

**THE NASHVILLE INDUSTRIAL CORPORATION**  
Old Hickory, Tennessee.**Equipment for Sale at a Bargain**

1—Casey-Hedges Marine Type Boiler, 125 lb. steam pressure, 60 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete grate bars.

1—Walsh and Weldner Marine type boiler, 125 lb. steam pressure, 110 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.

1—Casey-Hedges Marine type boiler, 125 lb. steam pressure, 40 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.

1—Walsh and Weldner Locomotive type boiler, 125 lb. steam pressure, 50 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.

1—No. 5 Standard Emerson Pump. Cast Iron body, 8" suction and 6" discharge. 1—Houston Stanwood and Gamble Class H cross compound engine, 100 H. P. Cylinders, 10 x 15 x 16. Fly wheel 72" x 16".

1—Chandler and Taylor Engine, 60 H. P. 11 x 14 cylinders.

1—Ingersoll-Rand Air Compressor, class A., Shop No. 7862 speed 155 r. p. m. 385 Cu. Ft. air p. m. When steam pressure is 100 lb. per square inch H. P. is 76.

1—Ingersoll-Rand Air Compressor, N. S. 1—Shop No. 15562 speed 210 r. p. m. 96 Cu. Ft. Air p. m. Requires 18 1/2 H. P.

Above machinery located at Chattanooga, Tennessee, and will be sold at a bargain. Wire, write, or phone.

**MILLS CONTRACTORS EQUIPMENT CO.****Chattanooga, Tennessee****FOR SALE OR RENT****Steam & Electric COMPRESSORS  
of all sizes.**

Hoisting Engines

Derricks

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Concrete Mixers

Orange Peel and Clam Shell Buckets

Motors, Generator, and Refrigerator Units

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**COMPLETE STOCK READY FOR IMMEDIATE DELIVERY****ARCHER ARMSTRONG & CO.****4839 A Grand Central Terminal, N. Y. City****PHONE Vanderbilt 3487****TRANSFORMERS FOR SALE**

Three Allis-Chalmers, Type "AL" Transformers, 75 KVA—2200/440 volt, single phase, 60 cycle, in original crates, never having been used.

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Fittings, Complete Power Plant  
Equipment, Manufacturers and  
Machinists, Refrigerating Engi-  
neers and Contractors.****6 and 8 W. Lombard St., BALTIMORE, MD.****FOR SALE****RUBBER BELTING**

Money-saving prices on new and slightly used Government Stock; all sizes.

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From 1" to 20" New and second-hand at less than one-half price. All makes Rotary Drilling rigs in stock.

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All sizes, from 1" to 18" New, Steel Black-line Pipe, with flanges or couplings.

**BIG STOCK ON HAND.**

Write for prices.

**S. BENDER IRON & SUPPLY CO.**  
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Large quantity Pipe, with threads and couplings, used in Government plant a short time.

Rods—100 tons 7/8" Round Rods, 14' to 22' lengths.

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USED MACHINERY**

1—Blake 9"x15" Steam Pump. \$150.

2—Goulds 4"x15" Pyramid Belt-driven Pumps.

Price each \$75.

1—Goulds 5"x8" Belt-driven Triplex Pump.

Price \$250.

1—35 H. P. Orr &amp; Sombower Vertical Steam Engine. \$225.

1—6 H. P. Otto Horizontal Gas Engine. \$175.

1—5' (Old Style) Radial Drill. \$350.

Second-hand Machine Tools of all descriptions.

1 H. P. Smith 8" 4-side Moulder, in good condition. Price f. o. b. location near Baltimore.

\$225.

Straight Turning Tool Holders for 18", 20",

24" to 36" swing Lathes, complete with

high speed steel bits and wrench. \$3.00

each.

**PULLEYS—SHAFTING—HANGERS****FAVORABLE****PRICE****Kemp Machinery Co.****Baltimore, Md.**



**Harris Brothers Co. offers**  
**Guaranteed**  
**EQUIPMENT**  
**Available Now!!**

**KEWANEE FIRE BOX BOILERS**

- 46—Splendid Kewanee low pressure fire box heating boilers, excellent condition—95% new. Brick set type, complete with all castings and trimmings, and include shaker grates Nos. 13, 14, 16, 18 special, and 111 smokeless.
- 12—Kewanee No. 45 water heating garbage burners, type "H", 95% new, capacity per hour 50 degrees raise, 2800 gallons.
- 150,000 ft. American Radiator Co. Hocooco pattern wall radiation, 5, 7, and 9 ft. sections.
- Get list of material and equipment from our sale at Great Lakes Naval Training Station of Camp Perry and Camp Dewey. Complete buildings, lumber, doors, windows, plumbing and heating material, pipe, electrical apparatus, kitchen equipment, valves, fittings, smoke stacks, tanks, roofing, skylights, etc. Your copy of this bargain list is waiting, ask for Bulletin GL-2 today.

**HOISTING ENGINES**

- 1—9 x 12-in. Russell, double cylinder, double drum Hoisting Engine, heavy duty type, without boiler.
- 4—7½ x 10-in. double cylinder, single geared drum Hoisting Engine, with reversing throttle valves.
- 1—6½ x 8-in. Clyde Double Cylinder, double friction drum steam Hoisting Engine, with two winch heads, drums 14" diam., 20" between flanges complete with fittings. (No Boiler). Base is made for Boiler.

**STEAM SHOVELS**

- 6—95-ton Bucyrus Railroad Type, 5-yd. dipper; 90 per cent new.
- 10—70-ton Bucyrus Railroad Type, 2½ to 3-yd. dipper; 90 per cent new.

**LOCOMOTIVE CRANES**

- 15 ton American 45 ft. boom, 8 wheel type
- 10 ton Industrial 35 ft. boom, 8 wheel type.

**DUMP CARS**

- 150—12-yd. Western & Oliver all-steel, two-way Dump Cars, standard gauge.
- 50—1½ yd. 20-in. gauge, wood body, two-way Dump Cars.
- 3—38-in. gauge, 8-wheel Flat Cars, 40,000 lb. cap., 7-ft. wide, 20-ft. long, wheels 24-in. diam.

**CENTRIFUGAL PUMPS**

- 1—6-in. Swaby Horizontal Centrifugal Pump.
- 1—8-in. Fairbanks-Morse Horizontal Centrifugal Pump.
- 1—12 in. Worthington Horizontal Centrifugal Pump.
- 1—24-in. Kingsford Horizontal Centrifugal Pump.

**AIR COMPRESSORS**

- 1—450 ft. Cap., Ingersoll 2 stage, belt driven Air Compressor, 100 lb. pressure.
- 1—1800 ft. Cap., Class W. B. 2, Sullivan Steam Driven Air Compressor, 100 lb. pressure.
- 2—Single Tandem Fuel Oil Driven Compressors, Chgo. Pneumatic Tool Co., No. S. O. 2.

**TANKS**

- 1—52 in. by 13 ft. 6 in. tank, ¾ in. material; 100 lbs. pressure.
- 1—54 in. by 7 ft. 6 in. tank, 7/16 in. material; 100 lbs. pressure.
- 1—48 in. by 12 ft. tank, ¾ in. plate; 100 lbs. pressure.
- 6—54 in. by 54 in. tank, ¾ in. plate; 125 lbs. pressure.
- 1—48 in. by 8 ft. tank, 5/16 in. plate; 100 lbs. pressure.
- 1—30 in. by 11 ft. 6 in. tank, ¾ in. material; 125 lbs. pressure.
- 1—30 in. by 7 ft. 6 in. tank, ¾ in. material; 100 lbs. pressure.
- 6—27 in. by 8 ft. tank, ¾ in. plate; 160 lbs. pressure.
- 1—24 in. by 11 ft. 6 in. tank, 7/16 in. material; 200 lbs. pressure.
- 30—30,000 gallon Vertical Storage Tanks, 20 ft. diameter, 12 ft. high, mostly 5/16 in. material.
- 50—11,500 gallon hor. Storage tanks, 8 ft. diam., 30 ft. long, about 7/16 in. plate.
- 25—3500 gallon hor. storage tanks, 6 ft. diam., 24 ft. long, about 7/16 in. plate.

Write for Industrial Bulletin No. 204 describing complete stocks at Chicago.

**HARRIS BROTHERS COMPANY**  
35th and Iron Sts., Chicago, Ill.

**FOR SALE**

- 1—11x18x18x11x18 "Laidlaw" Cross Compound, Two Stage, Steam Driven, Air Compressor.
- 1—9x12 "Skinner" Simple Automatic Engine, directed connected to 40 KW, 250 volt, 160 amp., 310 RPM, class ND "Triumph" Compound Wound Generator.
- 1—155 HP "Toledo-Flanner" Sectional Water Tube Boiler.
- 2—"Hanna" Compression Riveters 75" reach; 24" gap, 20" cast iron cylinders and dies, 125 tons on rivet die at 100 pounds pressure.
- 4—"Watson-Stillman" 10 ton Riveters; 48" reach, 3-¾" gap; 4" cylinders; 2" stroke; air pressure 90 lbs., hydro pressure 2000 pounds.
- 1—No. 20 "Strauss" Punch, arranged belt drive, capacity 1-½" diameter hole through 1" thick mild steel Throat 20" deep by 24" high.
- 1—"Niles" Boring Mill, 12" dia. table, 2 head on cross rail, 61" from top of table to rail and 54" to tool holder; bar travel 39"; with 1—20 HP, 230 volts, DC constant duty variable speed control "Triumph" motor; cross rail has 1—7½ HP, 230 volts, DC "Triumph" Motor.

**THE STACEY**

**MANUFACTURING COMPANY**

Elmwood Place Cincinnati, Ohio

**Red and Buff Dry Pressed Brick,  
Common Building Brick**

**GEORGIA-CAROLINA BRICK CO.**  
HOWARD H. STAFFORD, Pres.  
AUGUSTA, GA.

**IRON AND STEEL SCRAP  
BOUGHT AND SOLD**

Dismantling Propositions are Invited  
**A. M. WOOD & CO., Inc.**  
FINANCE BLDG., PHILADELPHIA, PA.

**IRON AND STEEL SCRAP  
Bought and Sold**

**OBSOLETE PLANTS WANTED**  
HENRY POTTS & CO.  
650 Real Estate Trust Bldg.  
PHILADELPHIA PENNSYLVANIA

**MACHINE TOOLS  
A FEW SELECTIONS FROM  
OUR STOCK**

Nazel No. 3 B, 250-lb. Air Hammer—Motor Driven.

14"—28"x8" Fay & Scott Extension Bed Gap Lathe.

24"x14" Porter Lathe—Quick Change.

18"x10" Monarch D. B. G.—Quick Change.

18"x8" Monarch D. B. G.—Quick Change.

16"x8" New Carroll D. B. G.—Quick Change.

16"x8" New Carroll D. B. G.—Quick Change.

16"x6" Hamilton—Quick Change.

14"x8" New Carroll—Quick Change.

No. 1½ Rockford Miller with Vertical Attachment and Dividing Heads.

30"x30"x8" Gray Planer.

14" Steptoe Shaper.

14" Smith & Mills Shaper.

2½" Cap Moline Heavy Duty Drills.

**ELECTRIC MOTORS AND GENERATORS**  
**BOILERS, ENGINES**  
**FEED WATER HEATERS**  
**AIR COMPRESSORS**  
**PUMPS**

**DELTA EQUIPMENT**  
Phone Market 601

148 N. Third St. Philadelphia.

**FOR SALE**  
**37 H. P. ELECTRIC**  
**(NEW)**  
**DOUBLE DRUM HOISTING**  
**ENGINES**

With swinging gear attachment.  
Made by **American Hoist & Derrick Co.**  
Equipped with magnetic brake.  
Capacity:

Pull on single line 6000 lbs.  
Speed full load 100 ft. per minute.

Motors furnished with these engines are 220 or 440 Volt, 60 cycle, 3 phase. We can however arrange to equip them with any kind of motor. Prices furnished with or without motor. Shipment can be made immediately.

Write or wire to:

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701 W. West Street, or **WAREHOUSE No. 10**  
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**MISCELLANEOUS**

Williams-White No. 4 Bulldozer.  
W-W. 72" S. E. Punch, M. D., 1 ½ x 1-½".  
Cleveland 72" S. E. Punch, M. D., 1 ¼ x 1".  
Doelger-Kirsten No. 4 Alligator Shear.  
National 3" Heading, Upsetting and Forging Machine.  
Chambersburg and Bement-Miles 2500 lbs.  
D. L. Steam Forging Hammers.  
Lathes, Planers, Shapers, Presses.

**Russell Machine Company**  
Pittsburgh, Pa.

**TANKS FOR SALE.**

New and used, in all parts of the country  
Over 4,000 steel storage tanks.  
Over 2,000 wood tanks.  
Over 500 tanks with agitators, jackets, etc.  
Over 1,800 rectangular tanks.  
Over 1,500 glass enameled tanks.  
Over 1,200 steel pressure tanks.  
Over 15 tanks and towers.  
We make lowest price on new tanks of any character or kind anywhere.  
Chemical and mechanical equipment.

**Largest Dealers In Tanks.**

**THE CURTISS-WILLIS CO.,**  
30 Church Street, N. Y.

**ATTENTION  
FUEL OIL USERS  
TANKS**

**QUICK SHIPMENT**

For Oil Storage and Similar Liquids.

50" dia. x 5' 2" long,	500 gallons.
50" dia. x 10' 1" long,	1,000 gallons.
54" dia. x 8' 8 ¼" long,	10,000 gallons.
84" dia. x 35' 0" long,	10,000 gallons.
76" dia. x 40' 0" long,	10,000 gallons.
120" dia. x 16' 7 ½" long,	10,000 gallons.
120" dia. x 10' 2 ½" long,	6,000 gallons.
120" dia. x 13' 6 ½" long,	8,000 gallons.
120" dia. x 15' 2 ½" long,	9,000 gallons.
120" dia. x 20' 2 ½" long,	12,000 gallons.
120" dia. x 25' 2 ½" long,	15,000 gallons.
120" dia. x 26' 10" long,	16,000 gallons.
120" dia. x 30' 2 ½" long,	18,000 gallons.
120" dia. x 33' 5 ½" long,	20,000 gallons.
120" dia. x 35' 2 ½" long,	21,000 gallons.
120" dia. x 40' 2 ½" long,	24,000 gallons.
20' dia. x 21' 4" high,	50,000 gallons.
25' dia. x 27' 3" high,	100,000 gallons.

**FOR ACID STORAGE**

102" dia. x 24' 6" long, 10,000 gallons.

**ALL NEW**

Regular "Sharpsville" Quality  
**SHARPSVILLE BOILER WORKS CO.**  
Sharpsville, Pa.



**TURBINES**

8-75 K. W. 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

**PLANERS**

- 1-Patch straight side, 6' x 18" x 12' bed.  
1-Patch straight or circular, 7' to 75' radius.

**BOILERS**

- 1-75 H. P. Economic Type Boiler, 100 lbs. pressure.  
4-150 H. P. R. T., 125 lbs. pressure.  
1-100 H. P. Economic Boiler, 100 lbs. pressure.

**CRUSHER**

- 1-Sturtevant Roll Jaw, size 6" x 15".

**ROLLS**

- 1-Sturtevant Balanced Roll, size 20" x 14".

**LATHES**

- 10-19x8 Le Blond, double back geared, quick change, belt driven.

**HOISTING ENGINES**

- 1-20 H. P. Mead-Morrison Bridge Hoist.  
1-40 H. P. S. D., 220-volt, D. C. Lidgerwood Builders' Hoist.  
1-8 1/4 x 10 S. S. D. Lidgerwood, with boiler.  
2-7 1/4 x 10 D. C. D. D. National, with boiler.  
2-7 1/4 x 10 D. C. D. D. Mundy, with boiler.

**AIR COMPRESSORS**

- 1-350-ft. Air, Bury, steam.  
1-1000-ft. Air, Sullivan.  
1-60-ft. Air, Nagle, new, belted.  
1-175-ft. Air, Ingersoll, steam.  
1-190-ft. Air, American, steam.

**PUMPS**

- 1-1000-gal. Knowles Single.  
1-750-gal. Worthington Duplex.  
1-500-gal. Advance Duplex.  
40-Scranton, size 6x5 1/2 x 6, new.

**DRYER**

- 1-Louisville Steam Dryer, size 6' x 25'.

**MALLORY MACHINERY CORPORATION**

BALTIMORE

MARYLAND

**EQUIPMENT FOR SALE**

- 2-150 H. P. R. T. Boilers, 100 lbs. pressure.

- 1-125 H. P. Side-crank Engine.

- 2-Hand-power Travelling Cranes, 24 and 29-ft. span, 5-ton capacity.

- 1-40" or 42" Gauge Locomotive (Baldwin), 10 ton.

- 1-25 H. P. D. C. D. D. "Byers" Hoisting Engine, with or without boiler.

- 1-16 H. P. "Pen Argyle" D. D. D. C. Hoisting Engine, no boiler.

**SOUTH SIDE FOUNDRY & MACHINE WORKS**

Charleston, W. Va.

**Ice-Making Machinery  
Refrigeration Machinery  
Engines, Boilers,  
Pumps, Compressors**

More than \$3,000,000 worth of high-class, rebuilt equipment; all principal makes, in all sizes.

*We can supply any requirements*

**CALHOUN MACHINERY EXCHANGE**

5 &amp; 6 City Hall Bldg.,

EL RENO, OKLA.

**DRYERS  
CRUSHERS — GRINDERS — PULVERIZERS**

For All Purposes

PLANTS DESIGNED AND EQUIPPED

**W. P. HEINEKEN**

Engineer and Manufacturer

95 Liberty Street

New York

- 1-42" and 54" J. A. Fay Band Rip Saw. 1-54" Gilbert Band Resaw.  
1-Glen Core 3" 4-side Matcher. 1-Prebble 16" 4-side Matcher.  
1-J. B. Hoyt 14" 4-side Matcher. 1-24" 3-drum Berlin Sander.  
1-30" 2-drum Fay. 1-26x12 Double Surface endless bed type.  
1-48" Circular Resaw—power feed. 1-30" Circular Resaw—power feed.

**MOULDERS:**

- 1-7" 3-side Houston. 1-7" 4-side Fay.  
1-9" 4-side Williamsport. 1-7" 3-side Hamilton.

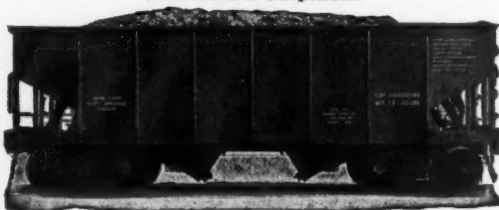
Boilers, Hoists, Pumps, Engines, Ironworking Machinery, Belting, Shafting, Pulleys, Hangers.

**THE CLEVELAND BELTING & MACHINERY CO.**  
1524 University Road CLEVELAND, OHIO

**RAILROAD AND CONTRACTORS' EQUIPMENT****IMMEDIATE DELIVERY**

**100,000 POUNDS CAPACITY SELF-CLEARING  
HOPPER BOTTOM COAL CARS**

Immediate Shipment



*Wire—Write your requirements*

**THOMAS F. CAREY COMPANY**

120 LIBERTY STREET

NEW YORK, N. Y.

**FOR SALE**

One—12-ton, eight-wheel American Hoist & Derrick Co., locomotive crane, full revolving, self-propelling, equipped with 32' boom, bucket handling, equipped with bucket complete, used only about fourteen months, first class condition.

21—12-yard standard gauge dump cars.

One—20-ton American saddle tank locomotive, standard gauge.

One—50-ton ten-wheel type Baldwin locomotive, standard gauge thoroughly overhauled, as well as other locomotives, cars, steam shovels, locomotive cranes, and other equipment.

*Will Appreciate Your Inquiries.*

**J. F. WORSLEY, Ltd.**

Peters Building

ATLANTA, GA.



## FOR SALE

### LOCOMOTIVE CRANES

- 1—15-20 ton Brownhoist 8 wheel M. C. B. 40 ft. boom bucket operating drums.
- 1—15 ton O. & S. 8 wheel M. C. B. 70 ft. boom with 25 ft. removable section double power driven drums also dragline attachments, equipped with outriggers.
- 1—15 ton Industrial, 40 ft. boom bucket drums.

### NEW TRACTION CRANES

- Full Revolving Road Cranes 7 ton capacity with ¾ yard bucket.

### STEAM SHOVELS

- 1—Marion model 31 1-yd. dipper shop No. 3068
- 1—Marion model 28 ¾ yd. dipper shop No. 3328
- 1—Marion model 21 caterpillar traction, ¾ yd. dipper
- 1—Marion model 40 on R. B. trucks 1 ¼ yd. dipper

### LOCOMOTIVE

- American 6 wheel switcher. Cylinders 18x24-in. Drivers 44", wheel base 11'6", weight 60 tons.

### BOILERS

- 1—30 H. P. locomotive type portable boiler with engine mounted on top.
- 1—50 H. P. firebox locomotive type 100 lb. pressure

### ASPHALT PLANT

- 1—Iroquois 800 yd. Road Asphalt plant Complete.

### CRUSHER OUTFIT

- 1—Gates 18-K; Gates 60" x 20' Revolving Screens; 42 in. Bucket Elevator 80 ft. Centers.
- We carry in stock concrete mixers, air compressors; road rollers, hoisting engines, buckets, pipes, cars and other equipment and machinery.

**F. MAYER**

53 W. Jackson Blvd.

Chicago, Ill.

## FOR SALE

- 3—Steam Pavers, Chute Discharge, Overhauled and in First Class Condition.
- No. 10 E. Foote.....\$1000.00
- No. 13 E. Foote.....1500.00
- No. 11 Koehring.....1750.00
- 10 Ton Monarch Steam Road Roller.....1500.00

**THE T. J. LANE EQUIPMENT CO.**

Springfield, Ohio

## CASH

## FOR THAT ENGINE!

It is no good to you.  
Why not advertise it  
in this department  
and turn it into cash.

## 24 x 36 Jaw Crusher

Farrell type 15-B. Rated capacity 60 tons, 3" per hour. Also Farrell 10 by 36", type 22-B, rated 40 tons, 2 ½" per hour. Both good order. Virginia delivery.

Two Chalmers & Williams No. 6 gyratory. Have been used very little. New Jersey delivery.

**E. H. WILSON & COMPANY**

COMMERCIAL TRUST BUILDING

PHILADELPHIA

**HARRY BENJAMIN  
EQUIPMENT CO.**  
724 Central National Bank Bldg  
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All weights in stock ready for prompt shipment.

We carry a large stock of all sizes angle and splice bars.

Buy nothing until you get our low prices.

We buy mixed industrial scrap and rails.

**We Purchase Abandoned  
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## Traveling Cranes and Hoists Material Handling Machinery

Unusual Facilities for Prompt Service

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Telephone 25 Church Street,  
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## "HOISTS"

Complete Line Rebuilt Steam and Electric  
Compressors, Mixers, Derricks, Cableways, Boilers, Crane  
Write for List

**HOISTING ENGINE SALES CO., Inc.**

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## FOR SALE OR TRADE

One Type "O" ¾ yd. Thew Shovel, shop number 1941, caterpillar traction, used only 90 days light excavating. Will sell outright or trade in on larger shovel yard to yard and half capacity caterpillar mounted.

**H. D. PEACOCK, Acting P. A.,**

Corona Coal Company, Birmingham, Ala.

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3—100 M lbs. cap. 41 ft. steel underframe flat or gondola cars.

5—8,000 gal. steel tank cars.

200—tons NEW 60 lb. rails.

**WALTER A. ZELNICKER SUPPLY CO.,  
ST. LOUIS**

## EXCAVATOR FOR SALE

SLACK-LINE EXCAVATOR, 50 H. P. National engine, 50 H. P. Otis boiler, 1-yard automatic self dumping bucket. A frames, cables, etc. all in good condition. Full details on request. Very cheap price.

**Albion Kaolin Co., Hephzibah, Ga.**

## LOCOMOTIVES

American—36 in. ga., 10 x 16 in., 18-ton, four driver saddle tank—145 lbs. working pressure.  
Vulcan—36 in. ga., 10 x 14 in., 14-ton, four driver saddle tank—130 lbs. working pressure.  
Lima (Shay) std. ga., 59-ton—three truck geared 12 drivers, 180 lbs. working pressure.

All thoroughly overhauled and ready for immediate service. Reasonable terms

**E. C. SHERWOOD**

50 Church Street New York

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One (1) forty-five (45) ton, four (4) driver passenger type, standard gauge locomotive. Rebuilt July this year, or will trade for standard gauge passenger cars.

**MERRILL COAL MINES, Inc.**

Henlawson, W. Va.

## [No. 4 KEYSTONE

No. 4 Keystone complete with dipper scoop, acmmer scoop, also extension boom and clam shell bucket. Fine shape. Will sell at bargain price. Immediate shipment.

**LEWTER F. HOBBS, Inc.**

NORFOLK, VA.

## Railroad Cars

### All Kinds

**HOUSTON RAILWAY CAR COMPANY**  
Houston, Texas

## LOCOMOTIVE CRANES FOR SALE

Brown Hoist 15-ton 8-wheel 50 & 70 ft. boom  
Browning 15-ton electric  
Browning 7 ½-ton electric  
Industrial 7 ½-ton steam

**HOISTING MACHINERY COMPANY**

50 Church Street - - New York

## FOR SALE AT A BARGAIN

- 2—ten-ton Holt Tractors.
- 24—2-yard, Watson Wagons.
- 2—24" Gauge, 3-ton Plymouth Gasoline Locomotives.
- 3—Domestic Pumping Outfits.
- 600—Tons 25-lb., Relaying Rails.
- 500—Tons 45-lb., Relaying Rails.
- 8—Maney Scrapers.
- 2—¾-yard Blaw Knox, Speedster type, Clam Shell buckets. Above located in North Carolina.
- 1—10-ton Austin Gasoline Road Roller.
- 1—No. 4 Keystone Excavator with one skimmer scoop and two ditcher scoops.
- 20—3-yard, Oliver side dump, wood body 36" Gauge Dump Cars.
- 14—1 ½-yard, 36" Gauge, all steel side dump cars.
- 12—1-yard, 36" Gauge, all steel side dump cars. Above located in Chattanooga, Tennessee.

**MILLS CONTRACTORS EQUIPMENT CO.,**

Chattanooga, Tennessee.

## SECOND-HAND MACHINERY CONTRACTORS, EQUIPMENT

Stacks—Tanks—Pipe, etc.

What are your requirements

**HENRY A. HITNER'S SONS CO.**

4501 RICHMOND ST., PHILADELPHIA, PA.

## THE WHITE OAK CORPORATION

"Tennessee Machinery Exchange"

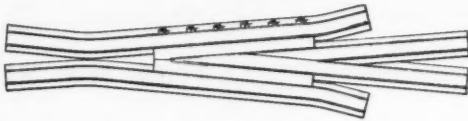
KNOXVILLE, TENN.

Buyers and Dismantlers of Woodworking  
and Other Plants

Boilers, Engines, Locomotives, Planing Mill Equipment, Furniture  
Factory Equipment, Saw Mills, Steel Rail, Electrical Equipment, Etc.



## The Mostest Service for the Leastest Cost



This is our Standard Stiff Frog No. 2. Built with an eye to economy, but not at the cost of strength. Parts are fitted together accurately and bolted in place with long bolts protected by cottered nuts.

The "AMERICAN" reputation stands behind it.

**American  
Frog & Switch Co.**  
HAMILTON, OHIO

## RAILWAY AND CONTRACTORS EQUIPMENT



1095-ton Consolidations; 21x28"; 200 lbs. pressure;  
Outside valve gear, Etc.

### LOCOMOTIVES

24", 36" and Standard Gauge; Rod and Geared; 5 to 100 tons in weight. FOR ALL CLASSES OF SERVICE

### LOCOMOTIVE CRANES

- 1 5-ton Industrial, 4-wheel; boom 29'0",
- 1 10-ton Amr. Hoist, 4-wheel; boom 43'0",
- 1 20-ton Industrial, 8-wheel; boom 35'0",

FREIGHT AND PASSENGER CARS, DUMP CARS,  
COAL CARS; 100,000 lb. Cap. CAR TRUCKS

COMPLETELY REBUILT IN OUR SHOPS, PLACED IN FIRST  
CLASS CONDITION. IMMEDIATE SHIPMENT FROM STOCK.

## Southern Iron & Equipment Company

(Established 1889)

Main Offices and Plant:  
ATLANTA, GA.

Branch Offices:  
NEW ORLEANS, LA.

### RAILS NEW & RELAYING ALL WEIGHTS

Let us know your needs. We may have material  
in stock near you.

WE BUY RAILS FIT TO RE-LAY  
**Robinson & Orr** Pittsburgh, Pa.  
New Frogs and Switches at low prices.

### RAILS

All Sizes RELAYERS.  
Prompt Shipment.  
Write or Wire for Prices.

We Buy Scrap Iron, Dismantle Plants  
**LOUIS COHEN & SON** - Wilkes-Barre, Pa.

Frogs—Switches—Spikes—Bolts—Complete Turnouts



**W. C. BRIDDELL CO., Inc.**  
BALTIMORE, MD.

Buyers Steel Scrap—Railroads Dism<sup>n</sup>

### The West Va. Rail Co. HUNTINGTON, W. VA.

Manufacturers Light Steel Rails  
12, 14, 20, 25, 30, 35, 40, 45 lbs. per yd.  
We are also dealers in Relaying Rails.  
All Sizes.

### RAILS NEW AND RELAYING Track Accessories

**NATIONAL STEEL RAIL CO.**  
I. H. COHN, President  
Third National Bank Bldg. St. Louis Mo

### RAILS IN STOCK

With Angle bars to match all sections.  
Wire or write for prices.

**M. K. FRANK**  
FRICK BUILDING PITTSBURGH, PA.

### RAIL FOR SALE

200 tons 20-lb. rail.  
200 tons 25-lb. rail.  
100 tons 30-lb. rail.  
2 miles of 40-lb. rail.  
50 tons of 50-lb. rail.  
100 tons of 56-lb. rail.  
200 tons of 70-lb. rail.  
200 tons of 80-lb. rail.

**H. T. LAMBERT CO.,** Huntington, W. Va.

### NEW and RELAYING

## RAILS NEW BOILER TUBES

Immediate Stock Shipment  
**HYDE & CO., Inc.,** Pittsburgh, Pa.

## Relaying Rails

2,000 tons 56-lb. Rail and Angle Bars.  
1,000 tons 60-lb. Rail and Angle Bars.  
600 tons 80-lb. Rail and Angle Bars.

We can make immediate shipment of  
this rail, and quote you an exceptionally  
low price. Please wire for particulars.

**The Isaac Joseph Iron Co.**  
528 Reading Road  
Cincinnati Ohio

## RELAYING RAILS

250 Tons 60 lb. Rails  
225 Tons 70 lb. Rails  
200 Tons 80 lb. Rails

All at Attractive Prices

**HENRY LEVIS & CO.**  
Commercial Trust Bldg. PHILADELPHIA, PA.

## RAIL FOR TRACK AND INDUSTRIAL PURPOSES NEW AND RELAYING

250 Tons	30 lb.	Relayers
500 "	35 lb.	"
300 "	40 lb.	"
1500 "	56 lb.	"
250 "	60 lb.	"
250 "	80 lb.	"
400 "	85 lb.	"
350 "	90 lb.	"

ALL WITH FULL COMPLEMENT OF SPICE BARS  
**LURIA BROS. & CO., INC.**  
OLIVER BLDG., PITTSBURGH, PA.

**Yards & Offices**  
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## Georgia Car & Locomotive Company

General Office and Plant, Ridge Ave. and Sou. Rwy.

**ATLANTA, GEORGIA**

**REBUILT LOCOMOTIVES:** All types and sizes—a large stock to select from.

**FLAT CARS: HAVING ENTIRELY  
NEW BODIES ON REBUILT  
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**CABOOSE CARS, BOX CARS, GONDOLA CARS,** and any kind of special cars built to your specifications.

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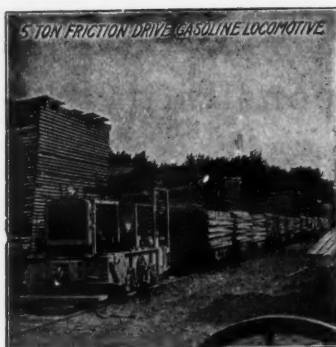
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Fig. 2 illustrates the gravel collected around the strainer after the finer sand has been drawn into and pumped out of the well. It is seen that this treatment forms a "gravel" strainer outside of the metal one and increases the inflow area — keeps the openings of the screen full and open, and increases the capacity of the well.

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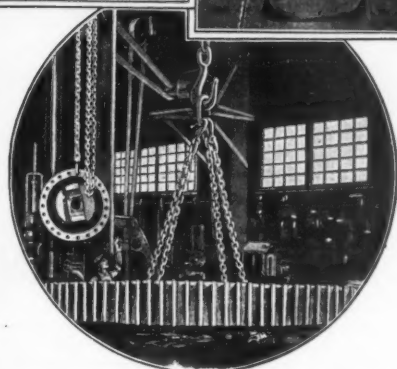
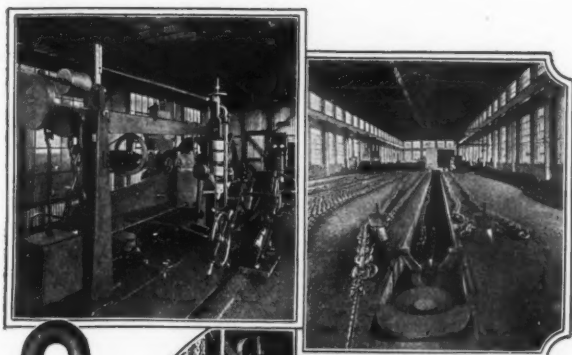
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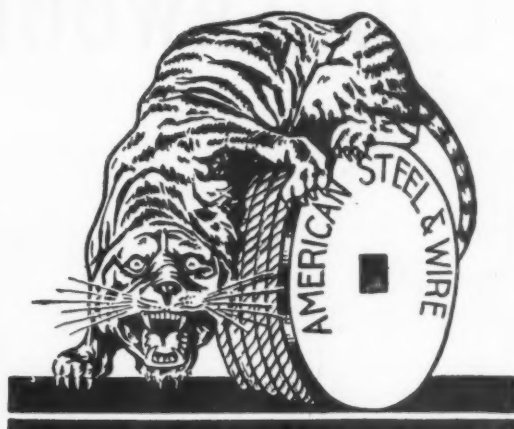
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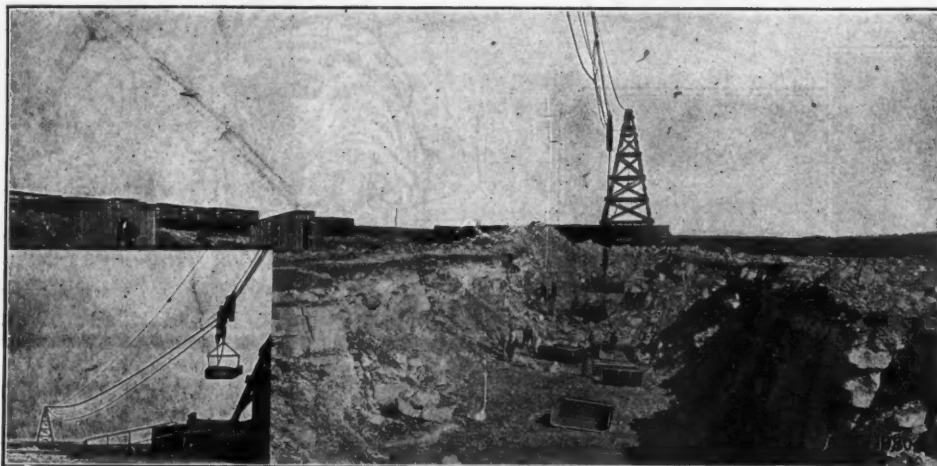
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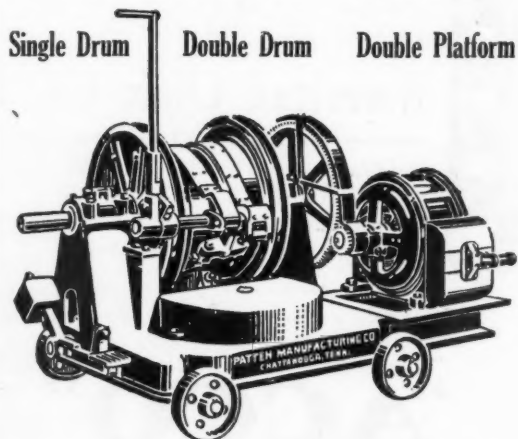
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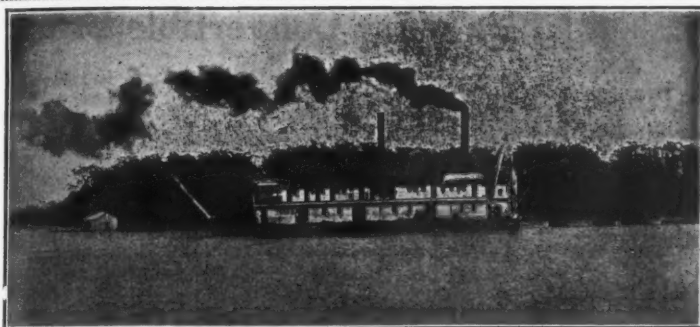
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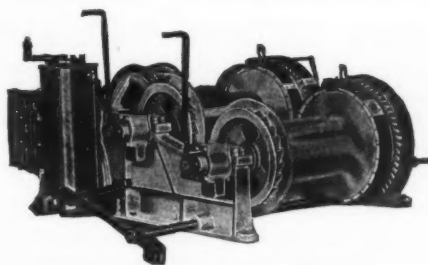
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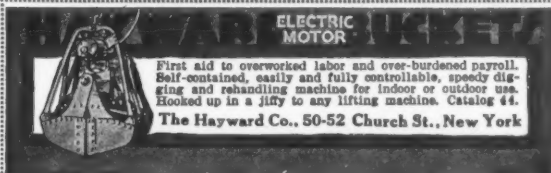


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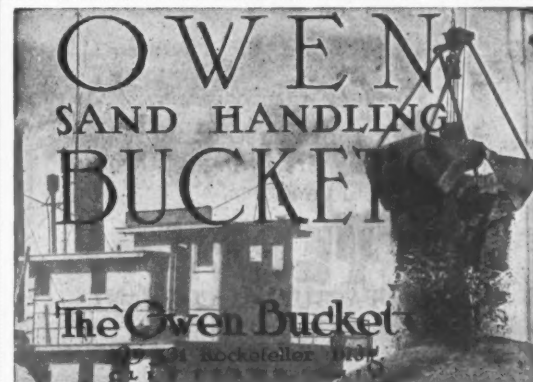


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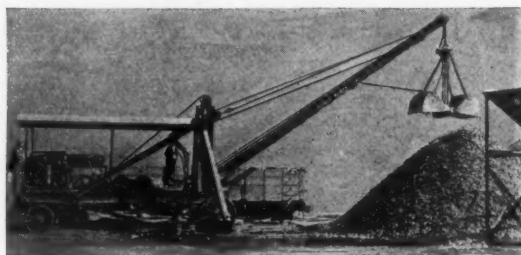
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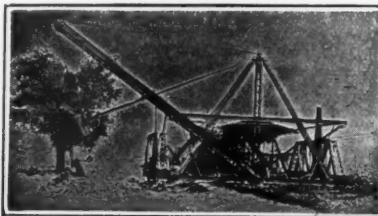
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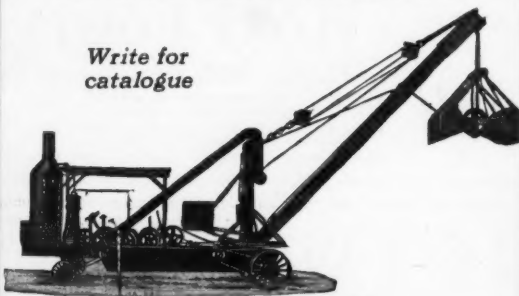
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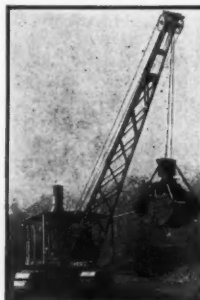
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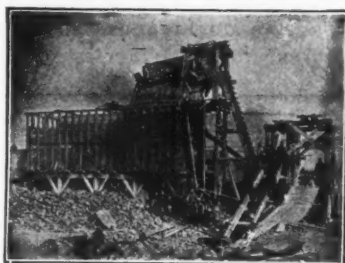
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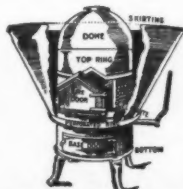
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A portable machine, daily capacity 5 to 7 tons.



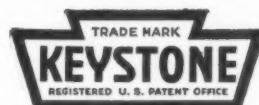
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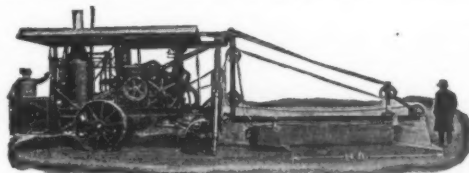
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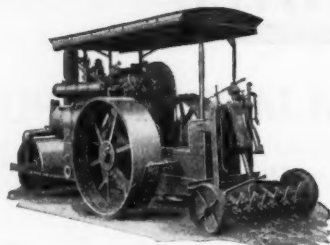
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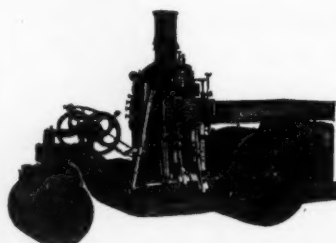
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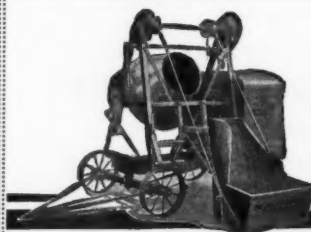
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WITH 12,000 busy Jaegers at work over the country it's an easy matter to find one on the job. Watch it at work. Note its easy action—its speed—how it keeps the gang on the move to feed and dump it. A staunch, over-strength, tilting-drum machine that keeps right on mixing—always.

For every type of concrete work there's a Jaeger model that will turn out the concrete speedily and economically.—A MIX A MINUTE.

Write today for full facts on this complete line.

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## CUMMER ASPHALT PLANTS

All Types and Sizes

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A full line of contractors  
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Sales representatives for

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**HAMPTON ROADS EQUIPMENT CO.**  
251-252 ARCADE BUILDING, NORFOLK, VA.

## THE MACON CONCRETE ROLLER

is recognized as being the simplest and best method for finishing concrete streets and roads.

The solution of your paving problems.

Does work faster and makes by test a stronger and better finish than other methods at less cost.

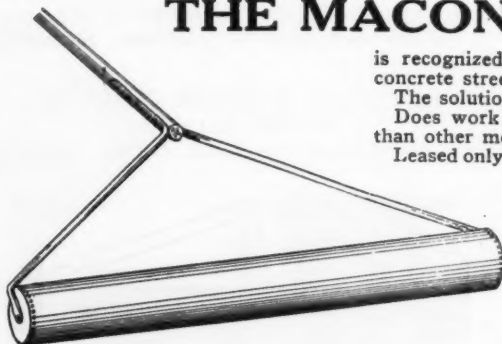
Leased only through us. Rented on a monthly or yearly liberal basis.

Each roller must bear our serial license tag, patented July 16, 1918, number 1,273,022.

Validated March 2, 1921, case number 141, U. S. Circuit Court, Northern District of Georgia.

Correspondence solicited

**MACON CONCRETE ROLLER CO.**  
MACON, GEORGIA

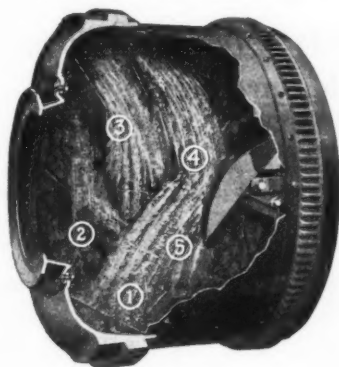




# Kansas for KOEHRING



Koehring re-mixed concrete is  
DOMINANT strength concrete.



**S**EVENTY-NINE per cent of all the contracts let for the building of hard surface highways in Kansas in 1919, 1920 and 1921 to date, have been or are being built with Koehring Pavers. Such an almost universal choice by Kansas contractors speaks more eloquently of the value and worthiness of Koehring Pavers than pages of advertising could possibly do.

Here are the statistics:

Total number miles of concrete road let to date in Kansas.....	181.349
Total number miles of brick road let to date in Kansas.....	60.043
Total mileage of hard surfaced roads let.....	241.392
Mileage paved or being paved with Koehring machines.....	191.309
Mileage paved or being paved with all other machines.....	50.083
Percentage of Koehring paved roads.....	79.249
Percentage of roads paved with all other machines....	20.752

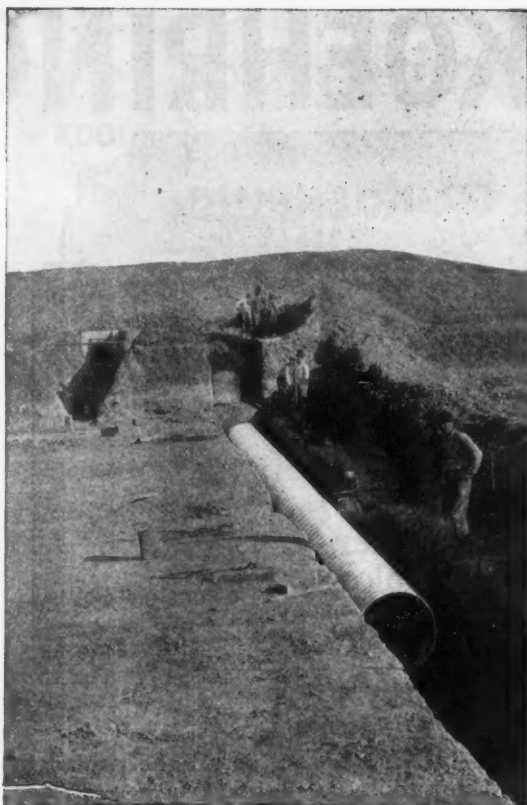
Of the 181.349 miles of concrete roads let, 137.224 miles, or 75.668% are Koehring built roads. And of the 60,043 miles of brick roads let, 54.085 miles, or 90.077% are constructed with Koehring pavers.

The customer is the final judge of worth. And 79% of the state hard road builders of Kansas back their judgment that the Koehring Heavy Duty paver is the paver of absolute dependability.

**KOEHRING COMPANY**  
MILWAUKEE, WISCONSIN

# KOEHRING





## To Carry Water Under Obstructions

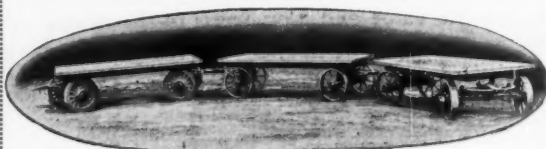
Whenever it is necessary to carry water for irrigation or drainage purposes under an obstruction such as railroad, highway or another conduit, and conditions require that the water be conducted under the obstruction at a lower level than the adjacent water level, no better form of construction can be employed than an inverted siphon made of Armco Corrugated Pipe. The ease with which the sections of Armco Pipe may be transported and installed and their unusual strength combined with lightness, make such installations simple and comparatively cheap. The accompanying illustrations show a 36" diameter Armco Siphon during installation on a western Reclamation District.

Armco Culverts and Siphons are made from Armco Ingot Iron which, due to its purity and uniform texture, resists rust and the deteriorating action of soil and climate. Since inverted siphons are invariably used for permanent improvements, Armco Siphons are preferred.



There is a manufacturer in nearly every state, and in Canada, making genuine rust-resisting ARMCO CULVERTS and other products of Armco Ingot Iron such as flumes, siphons, tanks, road signs, roofing. Write for full information and nearest shipping point on products in which you are interested.

**ARMCO CULVERT & FLUME MFRS. ASSN.**  
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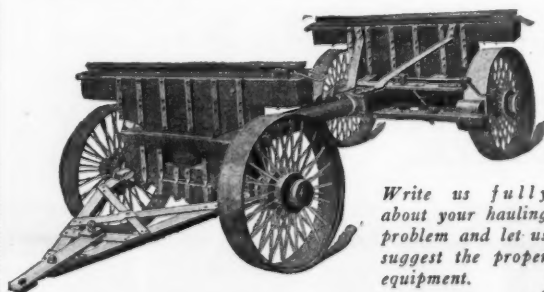
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**TRACTION WAGONS** for heavy hauling of all kinds, with bed or platform to suit requirements. 5 to 25 tons capacity. Many used in lumbering and mining.

**SPECIAL MACHINERY MOUNTINGS** for engines, boilers, crushers, mixers and portable machinery of all kinds, designed and built to suit the requirement.

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## All Buckets May Look Alike, —but are they?

In general appearance the Haiss Clam Shell looks like any other—but slam that "any other" against a wharf or barge for six months and it's ready for the repair shop or junk pile.

Treat a Haiss rough for the same period, and you'll be surprised how little it depreciates.

There's only one answer—Haiss Buckets are made stronger—they are made to last.

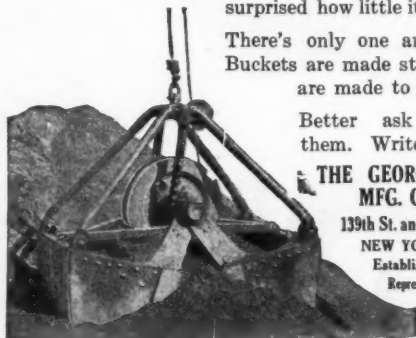
Better ask us about them. Write today.

**THE GEORGE HAISS MFG. CO., Inc.**

139th St. and Canal Place,  
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Established 1892

Representatives throughout the world.



H 13



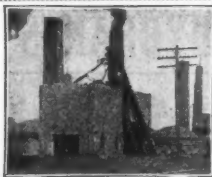
## 708 Feet of BUTT-JOINT NESTABLE CULVERT

of various sizes, loaded on *one* truck. Think of the haulage saving that means?

Butt-Joint Nestable Culverts are made of the finest metal; they are strong and easy to assemble, and strength is not sacrificed for nestability.

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also a full line of steel and malleable buckets, chain and sprockets.

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revolving  
shovel?

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BANNON'S PATENT LIDDED PIPE FOR STEAM CONDUITS

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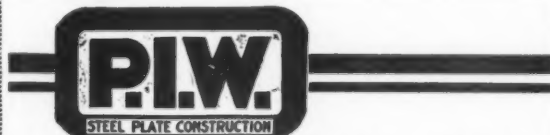
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and all classes of Steel Plate Construction for the Iron and Steel Industry.

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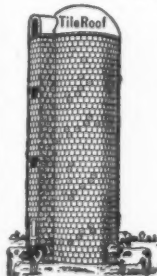
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FOR FIFTY YEARS

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*Their simplicity is a mark of superiority*



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Ludlow Gate Valves work equally well with pressure either side of Gate.

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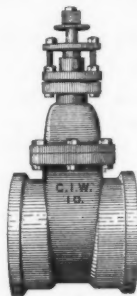
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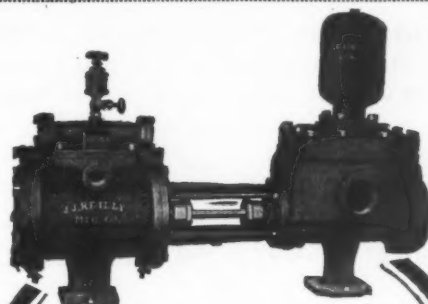
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Has greater capacity than iron pipe. Is durable and strong. Safety first. Insist on Michigan Pipe.

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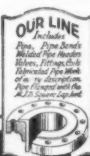


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Centrifugal **EARLE** Pumps

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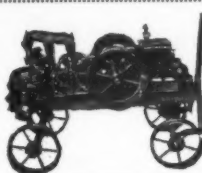
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MCGOWAN DUPLEX STEAM AND POWER DRIVEN PUMPS

*For every Industrial Activity*

THE JOHN H. MCGOWAN CO.  
CINCINNATI, OHIO, U. S. A.

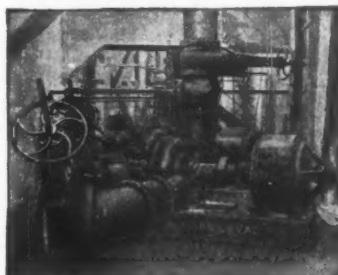
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EMERSON FOOT VALVES AND STRAINERS

For Contractors, Mines, Quarries, Cofferdams, and all Rough and Ready Service. Immediate Deliveries

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per minute against 110-ft. head. The high efficiency of De Laval centrifugal pumps suits them especially for motor drive.

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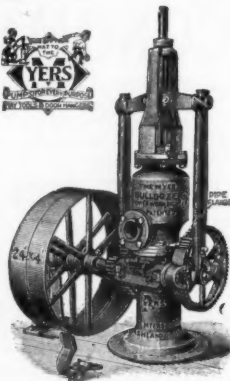
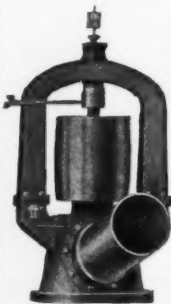
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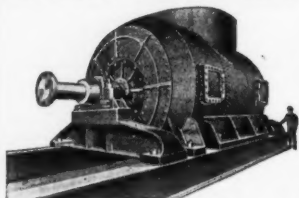
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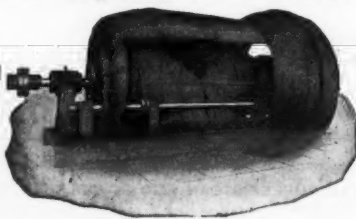
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Developed  
88%  
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Under  
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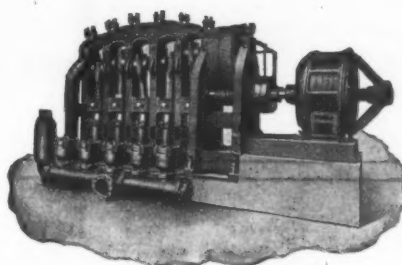
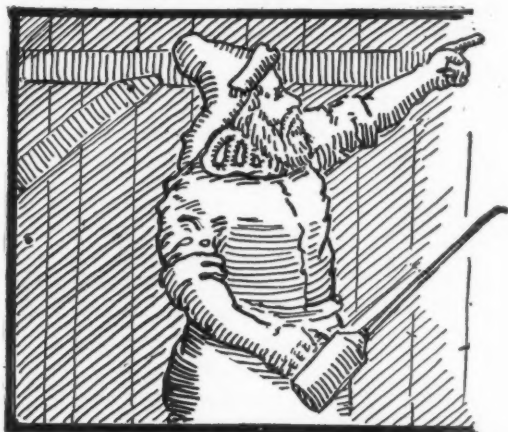
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ANY SIZE ANY DEPTH  
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**CENTRIFUGAL PUMPS**

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For Steam, Belt, Direct Connection of Electric Motor or any other convenient form of drive, Single and Double Stroke

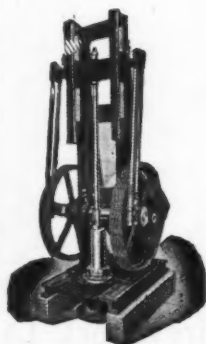
**Cook's Patent Brass Tube Well Strainers**

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**COOK  
Single-Stroke  
Deep Well  
Power Head**

**A. D. COOK**  
Lawrenceburg Indiana

**COOK  
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Brass Tube  
Well Strainer**

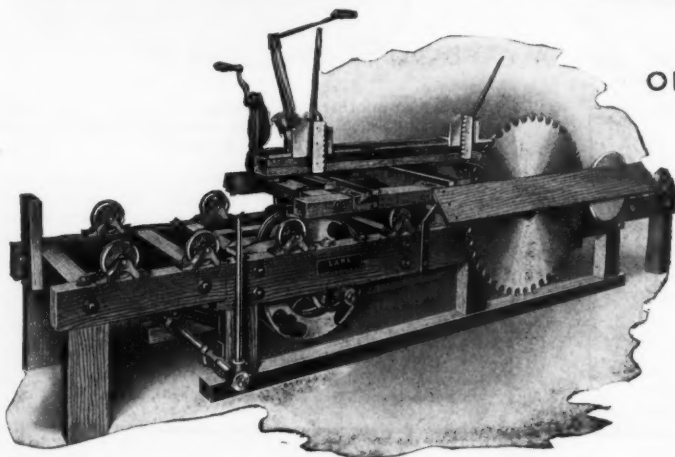




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OPERATED BY ONE MAN

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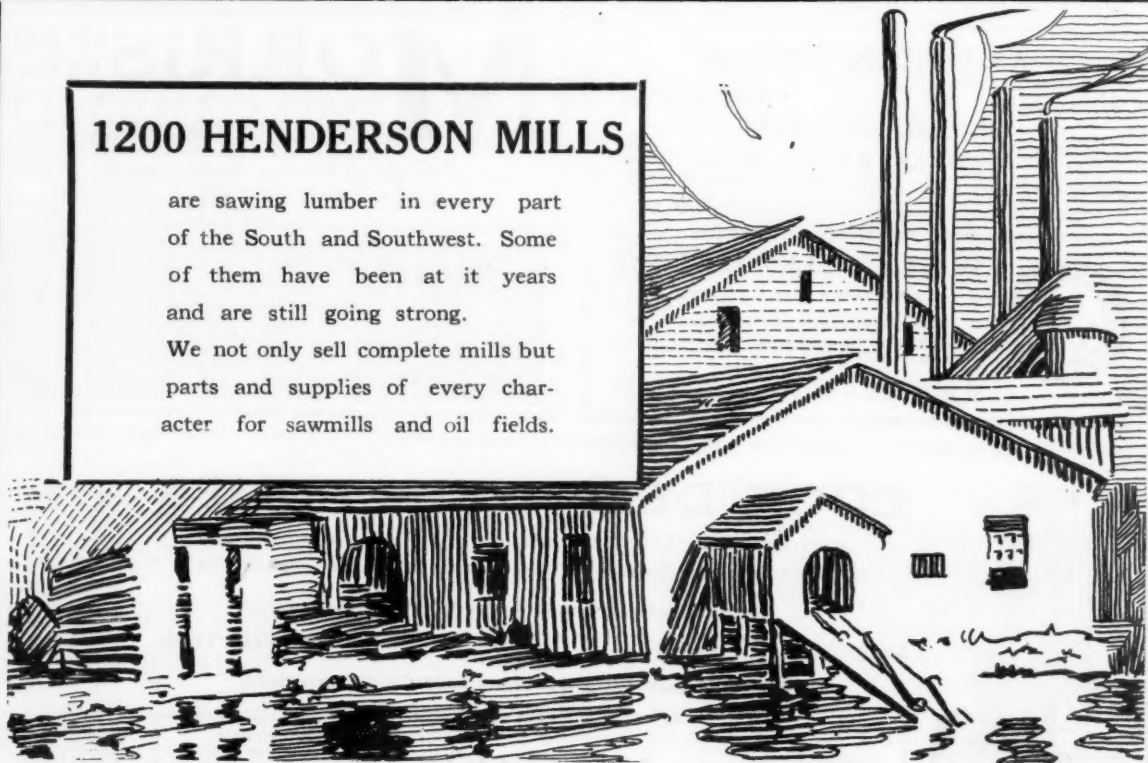
Made in four lengths, for 4, 6, 8 and 10 ft. logs.  
Send for Circular.

**LANE MANUFACTURING CO., MONTPELIER, VERMONT**

### 1200 HENDERSON MILLS

are sawing lumber in every part of the South and Southwest. Some of them have been at it years and are still going strong.

We not only sell complete mills but parts and supplies of every character for sawmills and oil fields.



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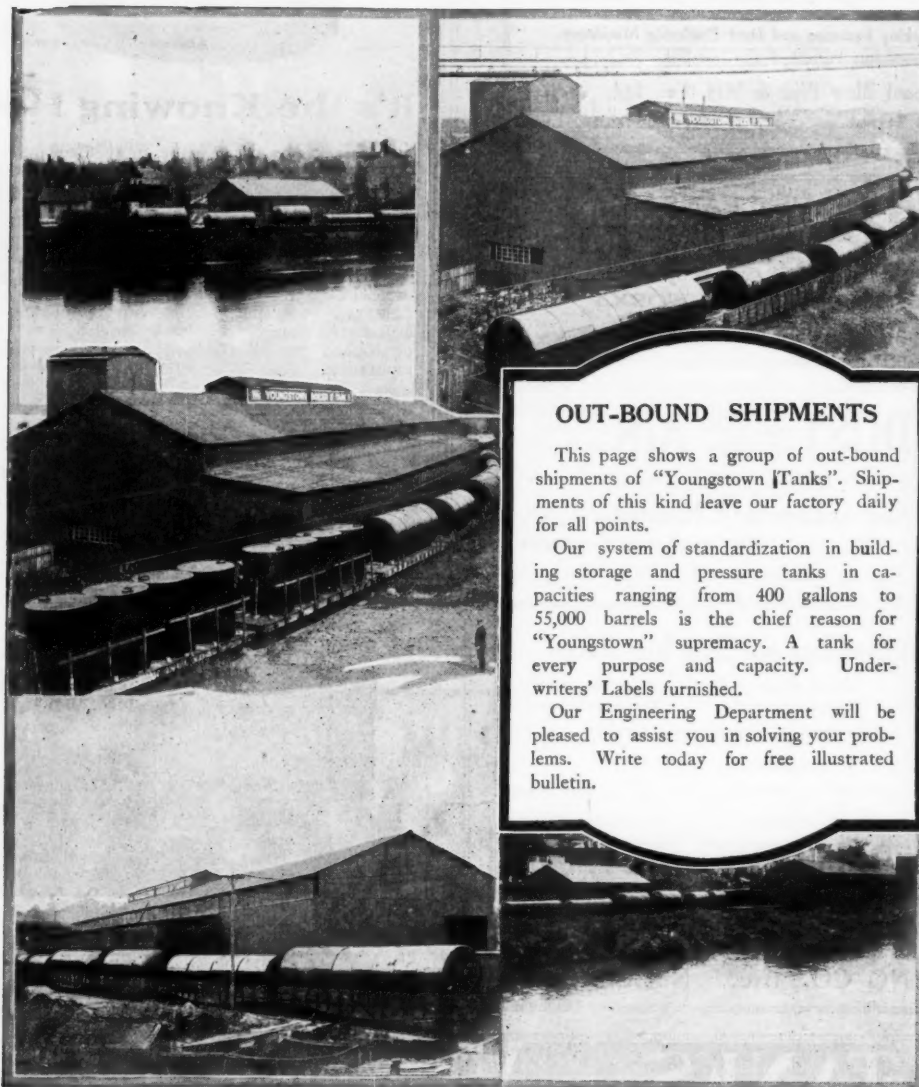
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**TRENCH MACHINERY.**

Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.

Buckeye Traction Ditcher Co., Findlay, O.

**TRIM.** (Metal)

Dahlstrom Metallic Door Co., Jamestown, N. Y.

**TROLLEYS.** (Overhead Tramway.)

Reading Chain & Block Co., Reading, Pa.

**TRUCKS.**

**Drykiln.**

Moore Dry Kiln Co., Jacksonville, Fla.

**Platform, Freight, Mill, Factory, Etc.**

Edwards Mfg. Co., The, Cincinnati, O.

**TRUST COMPANIES.**

Maryland Trust Co., Baltimore, Md.

**TUBE WELL STRAINERS.**

Cook, A. D., Lawrenceburg, Ind.

**TUBING.** Metal.

Boiler Tube Co., of America, Pittsburgh, Pa.

Griffith, James F., Philadelphia, Pa.

Muller Metals Co., Port Huron, Mich.

Ward's Steel Co., Edgar T., Boston, Mass.

Wheeling Steel Products Co., Wheeling, W. Va.

**Seamless Steel.**

National Tube Co., Pittsburgh, Pa.

**TURBINES.**

**Hydraulic.**

Lefel & Co., James, Springfield, O.

Smith Co., S. Morgan, York, Pa.

**Steam.**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

De Laval Steam Turbine Co., Trenton, N. J.

General Electric Co., Schenectady, N. Y.

Westinghouse El. & Mfg. Co., E. Pitts., Pa.

**TURNABLES.**

American Bridge Co., New York, N. Y.

Virginia Bridge & Iron Co., Roanoke, Va.

**TWINE.**

Plymouth Cordage Co., N. Plymouth, Mass.

Whitlock Cordage Co., New York, N. Y.

**UNIONS.**

Dart Mfg. Co., E. M., Providence, R. I.

**VALVES.**

Bethlehem Steel Co., Bethlehem, Pa.

Bourbon Copper & Brass Works Co., Cincinnati, O.

Colonial Supply Co., Pittsburgh, Pa.

Columbian Iron Works, Chattanooga, Tenn.

Crane Co., Chicago, Ill.

Frick Co., Waynesboro, Pa.

Jenkins Bros., New York, N. Y.

Ludlow Valve Mfg. Co., Troy, N. Y.

Lunkenheimer Co., The, Cincinnati, O.

Powell Co., The, William, Cincinnati, O.

Power Pipe Co., Pittsburgh, Pa.

Ryerson & Son, Jos. T., St. Louis and New York.

Vogt Mch. Co., Inc., Henry, Louisville, Ky.

Westinghouse Traction Brake Co., Wilmerding, Pa.

Wood Drill Works, Paterson, N. J.

**Acid-proof.**

Lunkenheimer Co., The, Cincinnati, O.

**Gas Producing.**

Morgan Construction Co., Worcester, Mass.

**Gas Reversing.**

Morgan Construction Co., Worcester, Mass.

**Gate.**

Ludlow Valve Mfg. Co., Troy, N. Y.

**VARIABLE-SPEED TRANSMISSION.**

Reeves Pulley Co., Columbus, Ind.

**VARNISH.**

Wadsworth, Howland & Co., Inc., Boston, Mass.

Ludlow Valve Mfg. Co., Troy, N. Y.

**VARIABLE-SPEED TRANSMISSION.**

Reeves Pulley Co., Columbus, Ind.

**VARNISH.**

Wadsworth, Howland & Co., Inc., Boston, Mass.

**VENEER CUTTING MACHINES.**

Titus, E. E., Petersburg, Va.

**VENTILATING APPARATUS.** (Engineers' and Contractors')

Allen Engr. & Mfg. Co., Savannah, Ga.

Buckeye Blower Co., Columbus, O.

Buffalo Forge Co., Buffalo, N. Y.

**VENTILATORS.** (Roof.)

Canton Art Metal Co., Canton, O.

Edwards Mfg. Co., The, Cincinnati, O.

Lenderking, Philip H., Baltimore, Md.

Schoedinger, F. O., Columbus, O.

**VICES.**

Western Tool & Mfg. Co., Springfield, O.

**WAGON LOADERS.**

Bonney Supply Co., Inc., Rochester, N. Y.

**Y.**

Hais Mfg. Co., Geo., New York, N. Y.

Link-Belt Co., Philadelphia, Pa.

Portable Machinery Co., Passaic, N. J.

**WALL PLUGS.** (Galvanized.)

Van Dorn Iron Works Co., Cleveland, O.

**WARDROBES.** (Rolling, Disappearing Door.)

Wilbur Corporation, The, J. G., New York.

**WASHERS.**

Copper, Iron, Brass, Aluminum.

Stimpson Co., Edwin B., Brooklyn, N. Y.

**WASHING MACHINERY.**

Ore and Phosphate.

Bailey-Leiby Co., Charleston, S. C.

Sand and Gravel.

Bonney Supply Co., Inc., Rochester, N. Y.

Link-Belt Co., Philadelphia, Pa.

**WATCHMAN'S PORTABLE CLOCKS.**

Chicago Watchman's Clock Works, Chicago, Ill.

Eco Clock Co., Atlanta, Ga.

Eco Clock Co., Boston, Mass.

Newman Clock Co., New York, N. Y.

**WATERPROOFING.** (For Brick, Concrete, Granite, etc.)

Master Builders Co., The, Cleveland, O.

Sonneborn Sons, Inc., L., New York, N. Y.

Texas Co., The, New York, N. Y.

Wadsworth, Howland & Co., Inc., Boston, Mass.

**WATER PURIFICATION.**

Permutit Co., New York, N. Y.

Roberts Filter Mfg. Co., Darby, Pa.

Seafie & Sons Co., Wm. B., Pittsburgh, Pa.

**WATER-SOFTENING APPARATUS.**

(Purifying.)

American Water Softener Co., Phila., Pa.

Borromonte Company, Chicago, Ill.

International Filter Co., Chicago, Ill.

Permutit Co., New York, N. Y.

Pittsburgh Filter & Engr. Co., Pittsburgh, Pa.

Seafie & Sons Co., Wm. B., Pittsburgh, Pa.

**WATER-WORKS, SUPPLIES, APPLIANCES.**

American C. I. Pipe Co., Birmingham, Ala.

Bourbon Copper & Brass Works Co., Cincinnati, O.

Coldwell-Wilcox Co., Newburgh, N. Y.

Columbian Iron Wks., Chattanooga, Tenn.

Cook, A. D., Lawrenceburg, Ind.

Glamorgan Pipe & Fdry. Co., Lynchburg, Va.

Hamburg Boiler Works, Hamburg, Berks County, Pa.

Michigan Pipe Co., Bay City, Mich.

National Water Supply Co., Birmingham, Ala.

Pacific Pipe & Tank Co., San Francisco, U. S.

U. S. Cast Iron Pipe & Fdry Co., Burlington, N. J.

Wood & Co., B. D., Philadelphia, Pa.

**WAX.** (For Belts.)

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**WELDING.**

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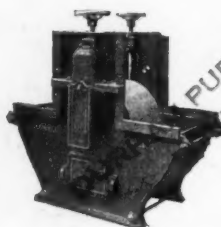
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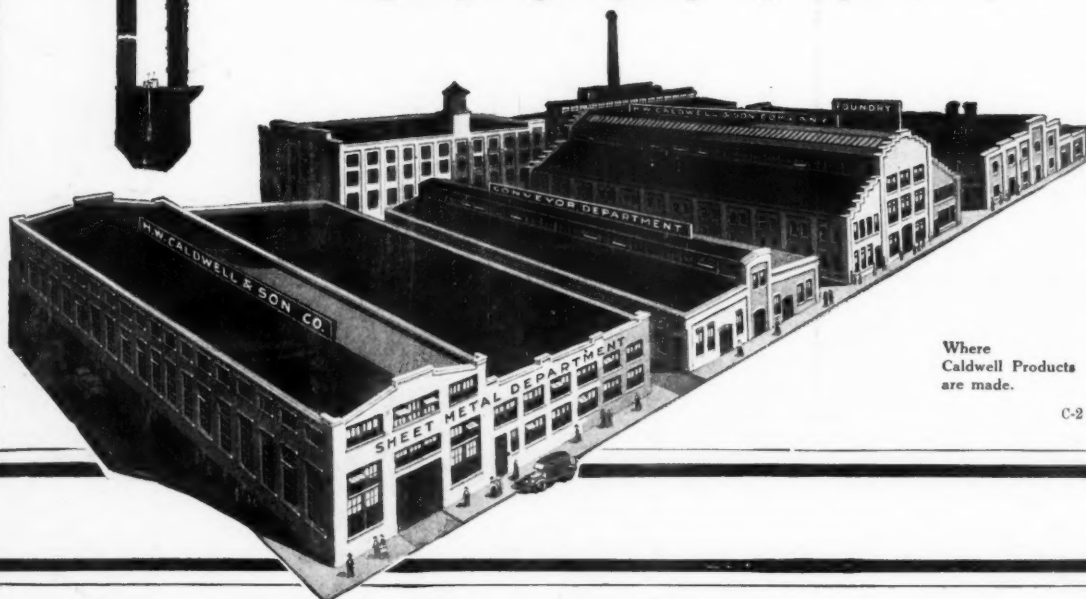
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